MATHS MATE

THE EDUCATIONAL ADVANTAGE

second edition

MATHS MATE

ROSE

J. B. Wright & I. Tutos

J. B. Wright & I. Tutos
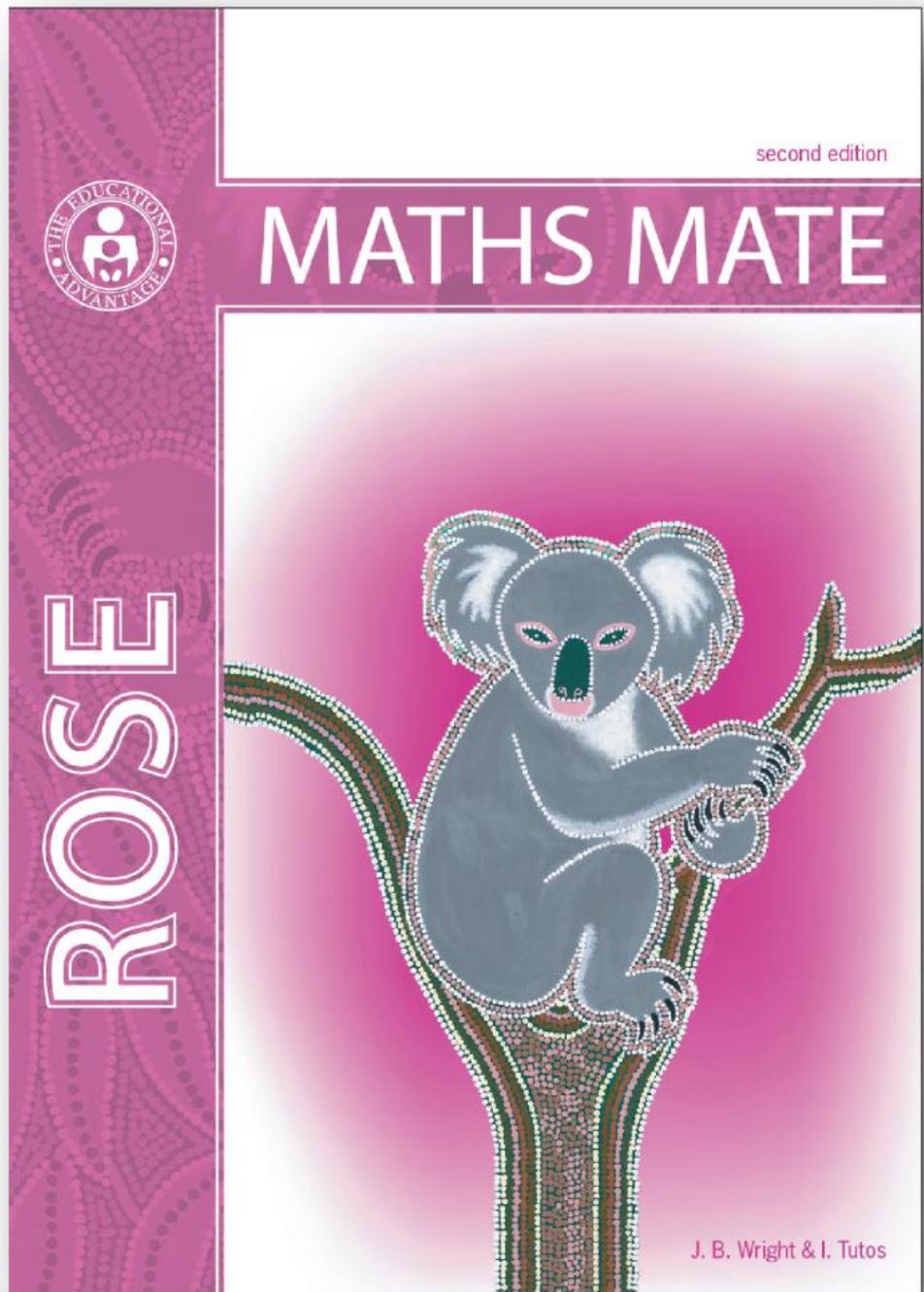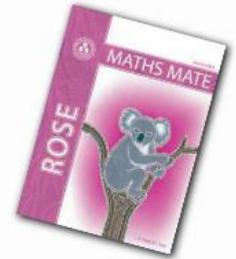
second edition

MATHS MATE

Teacher Resource Rose
(Maths Mate year 4)

▶ Teacher's Guide to the Use of Maths Mate

▶ Student Workbook Answers

▶ Student Workbook Short Answers

▶ Problem Solving Hints & Solutions

▶ Test Masters

▶ Test Answers

▶ Record Keeping Sheets

For your free Skill Builder Orange/Rose contact us:

▶ **info@mathsmate.net**

ROSE

THE EDUCATIONAL ADVANTAGE

J. B. Wright & I. Tutos

MATHS MATE

Teacher Resource

This Teacher Resource PDF
comes with a limited
Lifetime Update Guarantee.

Each time a new edition of the
Maths Mate Program is released,
an **upgrade** for your
Teacher Resource PDF is available
FREE* of charge
when you contact us direct.

This ensures that each teacher can have the latest edition without your school having to incur any further costs. We have chosen to do this to demonstrate the strength of our belief that access to a Teacher Resource PDF is important in the smooth running and success of the programme.

*The free Teacher Resource PDF is limited to schools that continue to purchase at least 25 student workbooks.

MATHS MATE
Teacher Resources - 2nd Edition

J. B. Wright & I. Tutos

Preface
The Maths Mate Review Program is designed to be used in schools by students from years 3 to 10 (Australia) and years 4 to 11 (New Zealand). Emphasis is placed on the review and gradual development of basic skills.

It is not expected that all students will be able to complete every question from week one. Some questions have been designed to offer a real challenge. However, a major strength of the program is that students are consistently confronted with problems relating to their understanding of the same basic skill, encouraging them to see the need to master that skill in order to progress.

RECOMMENDED GRADE / YEAR LEVEL INDICATOR

		AUS 1	2	3	4	5	6	7	8	9	10	11	12
Orange	Student Workbook - 2nd Ed.												
Rose	Student Workbook - 2nd Ed.												
Yellow	Student Workbook - 5th Ed.												
Red	Student Workbook - 5th Ed.												
Blue	Student Workbook - 6th Ed.												
Green	Student Workbook - 6th Ed.												
Mauve	Student Workbook - 6th Ed.												
Coffee	Student Workbook - 3rd Ed.												
Lime	Student Workbook - 6th Ed.												
Silver	Student Workbook - 3rd Ed.												
		NZ Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13

Maths Mate Rose cover painting
Koala - 2003
Acrylic on canvas 60 × 50 cm
by Australian artist Susan Betts - Kokata, Mirning and Wirangu.

'Koala' was purchased by The Educational Advantage who have been kindly given permission to reproduce the painting. This contemporary Aboriginal artwork combines traditional and modern techniques. Susan's rich and vibrant art reflects the Australian landscape and wildlife, both flora and fauna.

PREFACE

The Author

Joseph Wright has taught in a number of schools throughout Australia and also in the United States of America. His experiences led him to the firm belief that there was a real need for a Mathematics program which was based on a constant review of the basic skills which students acquire. The Maths Mate Program was designed to meet that need.

Acknowledgements

"The completion of this project was made possible by the hard work and inspiration of Joanna Tutos and Lou McKenna. Thanks to John and Wilma McCormack and the many colleagues and friends who contribute to the overall program. Special thanks to my wife Trish and our children, Peter, David, Rebecca, Paul and Anthony for their investment of time, energy, encouragement and faith."

Preface

The Maths Mate Program has been designed to be used in schools by students from Years 3 to 10 (Australia) and Years 4 to 11 (New Zealand. Emphasis is placed on the review and gradual development of basic skills so that students keep their skills up to date and teachers need to spend less class time on revision when starting new or subsequent topics.

The program is designed to have students complete eight worksheets each term. It is not expected that all students will be able to complete every question from week one. Some questions have been designed to offer a real challenge. However, a major strength of the program is that students are consistently confronted with problems dealing with their understanding of the same basic skills, encouraging them to see the need to master those skills in order to progress.

Maths Mate is a very comprehensive program which is not only structured to help students see a logical progression in their work but also to make life easier for teachers. Easy to use record keeping sheets have been provided on the Teacher Resource PDF. The tests, which are given twice a term, provide a very good indication of individual student strengths and weaknesses and this information can also be very valuable for addressing specific problems as well as assessing progress.

Aims of the Maths Mate Program

- Provide students with regular work that helps maintain and develop skills acquired throughout the year.
- Present a structured approach so that students can see their development in specific skill areas.
- Encourage students to take responsibility for their own learning.
- Provide a challenging level of work for all students.
- Encourage parental involvement in the learning process.
- Assist teachers in the diagnosis of student strengths and weaknesses.
- Provide teachers with a concrete method of assessing students' effort and progress on a regular basis.
- Provide a consistent review program which ensures students are regularly being exposed to the Mathematical skills appropriate to their ability level.

A Teacher's Guide to the successful Implementation of the
MATHS MATE PROGRAM

The Maths Mate Program offers many valuable benefits, including the aspects of parental involvement, systemised revision, individual and group diagnostics, enhanced professional standing for teachers, and most importantly, improved efficiency in student learning. However, a number of these factors may be negated or even lost if an individual teacher or school does not effectively implement the program. The Maths Mate Program was designed with an awareness of the increasing time demands placed on classroom teachers by ever-changing curriculum development and more involved assessment and reporting procedures. Maths Mate is a dynamic tool for classroom teachers designed to effectively improve student outcomes in Mathematics, to report accurately on these and to do so within a manageable time frame.

This guide was written to assist with the implementation of Maths Mate. This first page sets out the planning and preparation required by the Head of Mathematics and/or Maths Mate Coordinator, where one is appointed, before beginning the program. The following pages are a guide for classroom teachers using the program.

SUGGESTIONS FOR PREPARATION AND ORGANISATION:

Make sure parents are given advanced notice of the implementation of the Program. This might include an introduction at Parent Information meetings at the end of the year in preparation for the next.

At the start of the new school year a letter should be sent home to parents (see PDF ~ Teacher's Guide to the use of Maths Mate, or the editable word.doc, or www.mathsmate.co.nz ~ Downloads). Parental involvement should be encouraged. Their checking to see that work is completed weekly, and their signing of each sheet, should be stressed as important to the program's success. (A follow up reminder later in the year should also be considered.)

If you are fortunate enough to have audio visual screens in your classrooms, you might consider showing the answers from the Student Workbook Answers PDF files.

Thoroughly brief teachers on the use and advantages to them of the Maths Mate Program. Greater commitment will be given by all teachers if they are aware of the goals underlying the program and have a thorough understanding of the most efficient ways of implementation.

Give a demonstration of marking and recording procedures, and the potential use of *Skill Builders*, as an inservice exercise prior to the start of the school year. The pages that follow may be of assistance here.

Important: If the school has purchased the student workbooks for the students, you may be able to organise the separation of the workbooks (see page iv) prior to the start of the year, perhaps even at the end of the current year.

Reminder: The Teacher Resource PDF will be replaced free of charge when a class set of a revised edition is purchased.

It is often possible for The Educational Advantage to send a representative of the Maths Mate Program to visit your school. Should you consider this assistance advantageous, please contact us to arrange a visit.

Phone: 03 9899 9065 (Australia)   Phone: 07 929 4063 (New Zealand)
Email: info@mathsmate.net   Email: info@mathsmate.co.nz

A Teacher's Guide to the Use of the
MATHS MATE PROGRAM

The effective use of Maths Mate requires some good house-keeping on the part of teachers involved.

STARTING THE YEAR:

Each student will receive a Maths Mate Student Workbook appropriate to his or her level. This workbook will contain 32 worksheets of increasing difficulty. (Having 8 worksheets per term allows some flexibility to schools.)

Collect the workbooks from the students on the first day of the year. Use a class list to be sure that any student who has not yet obtained a copy is identified.

Organise for the pages of the student workbooks to be separated so that class sets of each worksheet can be placed in manila folders or plastic pockets for distribution to students on a weekly basis. (The help of teacher assistants, students or a parent support group may be useful here.) This avoids problems with a student losing a workbook and having trouble completing Maths Mate work for the remainder of the year. The covers can be used as a colourful divider to mark a section for Maths Mate work should the students be using a binder.

At the start of the year, brief your class on the advantages of the program. 'Sell' them the gains they can make with its effective use. Emphasise that, because of the nature of human memory, this program with its systematic, cyclic revision allows for maximum 'absorption' of learned procedures and for the strong reinforcement of important skills. These skills are a necessary prerequisite to problem-solving. Also explain that this is one of their responsibilities in the 'Teaching-Learning Process' and that as they progress further through the educational system, they will need to accept greater personal responsibility for their own learning.

Ensure that you take the time to fully explain the use of the program, how it will be marked, the recording process of results and the diagnostic benefits of those results for identification of appropriate *Skill Builders*.

See that each child receives a letter to parents informing them of the Maths Mate Program. Stress the parental involvement and the need for signatures on each sheet and see that you collect all the return slips for your class.

When submitting work, students might be asked to attach a separate sheet showing appropriate steps in their working. If the question can be answered in a single step, there is little to be gained from asking students to copy the question. If an intermediate step is required to obtain the answer, the student should set the question out appropriately. Such questions are marked with an asterisk ' ∗ ' to indicate to students that working is expected to be shown.

Emphasise that all problems on the worksheets and test sheets are designed to be attempted without the aid of a calculator. Students are unlikely to become confident Mathematicians if they do not have a reasonable background of basic skills.

It is important to explain your expectations to the class. Naturally these will be relative to their level of mathematical ability. Some class members may be expected to attempt all questions including the problems at the end whereas others may only be expected to complete the sheets in part (but encouraged to go further when possible).

Also explain that the material covered in each worksheet may not necessarily reflect the work being undertaken in class at the time. The work covered by the Maths Mate Program should, with minor exceptions, be revision of work introduced in previous years of study. The exceptions will depend to some degree on the background of your students.

Tell the students that there is a 'Mate' ☺ hiding on every Maths Mate worksheet. The trick is to find it!

At the start of every term give each student a new *Worksheet Results* sheet located at the beginning of each term in the Student Workbook. Explain the importance of the upkeep of this document and how it may be used to identify which skills they have acquired and which skills they still need to learn and practise. Introduce the availability of *Skill Builders*. Providing a new sheet each term gives you a chance to further encourage students to make a fresh start and to set new goals for the term.

A hard copy of this profile sheet is best kept by the class teacher and handed back to the students every week for them to update during the correction process. Extra copies can be made for those students who would like to have a copy of their own to show their parents (see PDF ~ Record Keeping Sheets, pages 1 to 4, or www.mathsmate.co.nz ~ Downloads).

WEEK - TO - WEEK:

Get the students into a routine early. Assign the Maths Mate worksheet at the same time each week and have it returned on the same day the following week.

On the date worksheets are due, the teacher and students correct answers together in class. When marking, have students correct their own work by reading the answers to them or use an overhead screen. Having students correct their own work is less about saving the teacher's time for more important work, but more about building the process of developing in students responsibility for their own learning. It also means that students end up with a much clearer idea of the areas in which they need to concentrate their efforts.

When giving the answers, avoid pausing to discuss the answers at this stage. By using the numbered squares at the base of the worksheets to record correct responses, the time taken to transfer results to the *Worksheet Results* sheet can be minimised (see Fig. 1). The squares at the base of each worksheet can be rotated and aligned with those on the *Worksheet Results* sheet to enable a quick transfer of the correct responses.

Should there be need for explanation of one or more answers or perhaps how a problem was solved, you can decide on the relative worth to the class and commit appropriate time on that basis. After the correction has been completed, it can be valuable to spend time on a problem that has clearly attracted the class's attention while they are focused on it and their interest is high. On the other hand, care needs to be taken to ensure extended periods of time are not spent catering to individual needs with the bulk of the class waiting.

Remember to check the *Problem Solving Hints & Solutions* (see PDF ~ Problem Solving Hints & Solutions, pages 1 to 19). They supply teachers with ready answers to the more challenging problem solving questions found at the end of each Maths Mate worksheet. They also contain helpful hints for developing students' problem solving skills.

Have the students fill in their *Worksheet Results* sheets and select a relevant *Skill Builder* sheet if appropriate. *Skill Builder* links are listed beside each set of four worksheets (see Fig. 1). Students should work through the *Skill Builders* in order. Where possible the skills are arranged in increasing degree of difficulty. Be aware that some skills may require the knowledge of previous skills. Generally when a student has several areas of weakness, he or she should work on the lowest numbered question first. For example, students struggling with Q3 and Q6 will need to build skills required for Q3 before they can improve Q6.

Fig. 1 - Sample *Worksheet Results* sheet

Fig. 2 - Sample *Skill Builder* sheet

Fig. 3 - Sample *Worksheet Record* sheet

Understand that any question on the Maths Mate worksheets is part of a set of four similar questions in the term. For example, consider sheets 1, 2, 3 and 4 in MM Rose (year 4) term 1. Question 10 on each sheet is similar in design, content and degree of difficulty. This grouping of question style is also true for the next set of four worksheets and so on. Thus the Maths Mate tests (see PDF ~ Test Masters, pages 1 to 32) also reflect this grouping of question style and substance. Generally too, the *Skill Builders* can be linked to each set of four similar questions. These links are identified, not only on the *Worksheet Results* sheet but also on the grid at the title of each *Skill Builder* (see Fig. 2). Both references should be helpful for the allocation of *Skill Builders* to students.

Collect the students' Maths Mate worksheets and attached working, the *Worksheet Results* sheets and any completed *Skill Builders*.

Enter Maths Mate results onto your *Worksheet Record*, see Fig. 3 (see also PDF ~ Record Keeping Sheets, pages 7 to 10, or www.mathsmate.co.nz ~ Downloads). Firstly, a record of the total number of correct answers for each week can be written. The presence of a parent's signature may also be noted to monitor whether work was attempted by the student at home. Late work can also be noted. This system is explained at the base of the *Worksheet Record* sheet. Finally, a record of any *Skill Builder* completed or reward given to the student for good or improving work might be noted.

It is important that students are encouraged to complete every Maths Mate worksheet to maintain the effectiveness of the program.

Skill Builders are available to students, teachers and parents from the Maths Mate websites www.mathsmate.net and www.mathsmate.co.nz The Skill Builders extensively target through instruction and practice, all skills within the related Maths Mate Program except the problem solving questions. The *Skill Builders* also contain a *Glossary* of important facts and reference material that will provide instant help when students experience difficulties. Parents could be reminded of their access to this facility.

Tests are given twice a term. These tests take the same format as the worksheets and are based on the previous four worksheets. A and B tests are provided to allow alternate students to have a different test, thereby ensuring scores accurately reflect the student's own work. (The two tests can be distinguished by their label at the base of the second page, e.g. Rose~Test 3A and Rose~Test 3B.) The tests serve a number of purposes. They give the teacher a more accurate indication of the student's abilities in conditions where the child does not have the assistance of a parent or tutor. They also help to motivate students to correct their work accurately and increase their desire to learn the required skills. Without the tests, students may become comfortable with seeking assistance to achieve high scores, unaware of the importance of fully understanding their work.

It is at this point that teachers record accurately how students are performing in each area of skill. A *Test Results* sheet is provided (see PDF ~ Record Keeping Sheets, page 5, or www.mathsmate.co.nz ~ Downloads). It is expected that one of these forms be completed for each student in the class when recording test results. Again, the numbering system at the bottom of each page helps speed up this process. When administering the tests, it is advisable to have an assignment of some form or a *Skill Builder* worksheet available for students to begin as soon as they complete the test, which may only take 30 minutes for an able student.

TOPIC - TO - TOPIC:

A periodic check of the *Test Results* sheets will assist you in evaluating individual or possible class areas of concern. You can then plan appropriate *Skill Builder* work or advise individual students of concerns (perhaps as a guide to tutoring). It will also give you a valuable indication of the background skills students have before beginning a new topic, allowing you to tailor your lessons appropriately. In fact you are saved from having to pre-test students before each topic. This will result in a considerable saving of class time.

END OF SEMESTER:

Combined, the *Worksheet Results* sheet, the *Test Results* sheet and the *Worksheet Record* sheet become invaluable for writing reports and for preparing for parent / teacher interviews. They give a good indication to parents, not only of the child's skills but also of the consistency of their effort and the degree of responsibility they have assumed for their learning. At the end of the year, particularly when moving into a level where streaming occurs or into senior Mathematics classes, these records allow clear comparisons of students to be made across class groups.

MERIT CERTIFICATES:

Merit Certificates can be used to encourage and reward selected students for consistent work, outstanding results or best of all, for significant improvement. A master Merit Certificate can be found on the Teacher Resource PDF and can be printed and presented to students at the teacher's discretion.

We are confident you will find the Maths Mate Program a valuable asset to your teaching. We thank all those teachers who have provided feedback on this program and we value further comments and suggestions. Please direct all correspondence to:

Joe Wright
The Educational Advantage Pty Ltd
Building 5 / 29 Clarice Road
Box Hill South VIC 3128
AUSTRALIA
Phone: 613 9899 9065
Email: info@mathsmate.net
Website: www.mathsmate.net

Learning Works
408 Anglesea Street
Hamilton 3240
NEW ZEALAND
Phone: 647 929 4063
Email: info@mathsmate.co.nz
Website: www.mathsmate.co.nz

Dear Parents,

This year, as part of their Mathematics program, all Year 4/5 students will be given a Maths Mate worksheet on a regular basis. There will be 8 worksheets to be completed each term, generally one per week, the exceptions being short or disrupted weeks.

The Maths Mate worksheets have been designed to allow students to attempt all questions without the aid of a calculator, and this should be encouraged at home.

Don't be too concerned if your child finds the initial worksheet difficult. It is not expected that students will be able to complete every question from week one; in fact Q21 has been included to offer a real challenge to all students. Each worksheet is built around a common framework of questions aimed at covering the current Mathematics Curriculum.

While there is room on the worksheet for the recording of answers, this is only intended as a summary of the student's work. An asterisk ' * ' has been used to indicate those questions where each student has been asked to show his or her working. In these cases the detail normally expected in Mathematics should be included, with all steps in the development of answers clearly shown. This working should be attached to the worksheet and submitted with it.

Corresponding questions on each worksheet cover the same skill area; that is, Q1 always tests counting, Q2, addition / subtraction, and so on with the questions within each category becoming progressively more difficult from week to week.

Students will be confronted by the same type of question on a regular basis. The diagnostic nature of the worksheets will help students and teachers to identify areas of strength and weakness. This should also help to motivate students to make another attempt at mastering skills that they may have found too difficult in the past. As well, the results sheet, if completed accurately, will allow students to enjoy monitoring their own improvement.

If your child is having difficulty with a certain skill, Skill Builders are available to students, teachers and parents from the Maths Mate websites **www.mathsmate.net** and **www.mathsmate.co.nz**   The Skill Builders also contain a Glossary of important facts and reference material that will provide students with instant help.

It would be appreciated if you would complete the tear off slip at the bottom of this page so that we can be sure that you are aware of our expectations. We ask also that you sign the completed worksheet each week to acknowledge that your child is working independently and regularly but with your support.

We thank you in anticipation of your involvement and remind you that you are encouraged to call and discuss your child's progress at any time.

Yours sincerely,

Class Teacher

Principal

Maths Mate Program - Return Slip

Student's Name: ……………………………………………. Class: …………………….

As a parent / guardian I have signed this form to indicate that I am aware of the Maths Mate requirements expected of my child.

Parent's Signature: ……………………………………………. Date: ……………………………….

Dear Parents,

This year, as part of their Mathematics program, all Year 5/6 students will be given a Maths Mate worksheet on a regular basis. There will be 8 worksheets to be completed each term, generally one per week, the exceptions being short or disrupted weeks.

The Maths Mate worksheets have been designed to allow students to attempt all questions without the aid of a calculator, and this should be encouraged at home.

Don't be too concerned if your child finds the initial worksheet difficult. It is not expected that students will be able to complete every question from week one; in fact Q24 has been included to offer a real challenge to all students. Each worksheet is built around a common framework of questions aimed at covering the current Mathematics Curriculum.

While there is room on the worksheet for the recording of answers, this is only intended as a summary of the student's work. An asterisk ' * ' has been used to indicate those questions where each student has been asked to show his or her working. In these cases the detail normally expected in Mathematics should be included, with all steps in the development of answers clearly shown. This working should be attached to the worksheet and submitted with it.

Corresponding questions on each worksheet cover the same skill area; that is, Q1 always tests adding whole numbers to 10, Q2, subtracting whole numbers to 10, and so on with the questions within each category becoming progressively more difficult from week to week.

Students will be confronted by the same type of question on a regular basis. The diagnostic nature of the worksheets will help students and teachers to identify areas of strength and weakness. This should also help to motivate students to make another attempt at mastering skills that they may have found too difficult in the past. As well, the results sheet, if completed accurately, will allow students to enjoy monitoring their own improvement.

If your child is having difficulty with a certain skill, Skill Builders are available to students, teachers and parents from the Maths Mate websites www.mathsmate.net and www.mathsmate.co.nz The Skill Builders also contain a Glossary of important facts and reference material that will provide students with instant help.

It would be appreciated if you would complete the tear off slip at the bottom of this page so that we can be sure that you are aware of our expectations. We ask also that you sign the completed worksheet each week to acknowledge that your child is working independently and regularly but with your support.

We thank you in anticipation of your involvement and remind you that you are encouraged to call and discuss your child's progress at any time.

Yours sincerely,

Class Teacher

Principal

Maths Mate Program - Return Slip

Student's Name: . . . . Class: . . . .

As a parent / guardian I have signed this form to indicate that I am aware of the Maths Mate requirements expected of my child.

Parent's Signature: . . . . Date: . . . .

MATHS MATE

Teacher Resource

MATHS MATE
Term 1 - Sheet 1

RoSE ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....
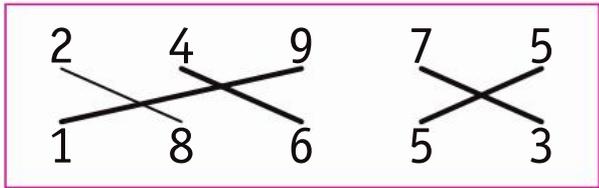
1. [Counting]

Write the numbers before and after 200.

| 199 | 200 | 201 |

2. [Addition / Subtraction]

Draw lines to join pairs of numbers that add to 10.

2   4   9   7   5
1   8   6   5   3

3. [Multiplication / Division]

Complete the multiplication.
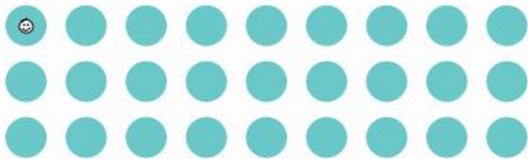
3 rows of 9 =

| 3 | × | 9 | = | 27 |

4. [+ Whole Numbers]

	2	14	9	3	16
+ 8	10	22	17	11	24

5. [− Whole Numbers]

	19	14	16	13	18
− 10	9	4	6	3	8

6. [× Whole Numbers]

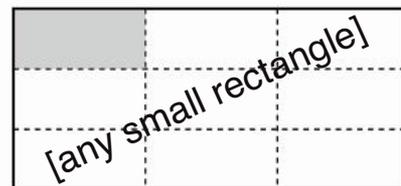|	7	9	11	4	6
× 3	21	27	33	12	18

7. [÷ Whole Numbers]

$80 \div 10 =$ 8

8. [Word Problems]

The school zone speed limit in New Zealand is 40 km/h. For New Zealand's highways the speed limit is 60 km/h higher. What is the speed limit for New Zealand's highways?
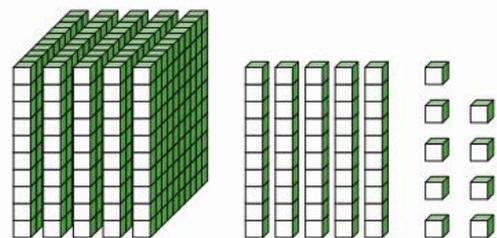[Write the number sentence.]

$40 + 60 = 100$ km/h

9. [Fractions]

Colour one ninth of the rectangle.

[any small rectangle]

10. [Place Value]

5 hundreds 5 tens 9 ones = 559

11. [Word Numbers]

Write in numerals:

nineteen   19

12. [Money]

Circle the coin with the greatest value.

13. [Number Patterns]

13 , 15 , 17 , 19 , 21 , **23** , **25**

14. [Time]

17 February 2026 marks the beginning of the Chinese New Year of the Horse. Which day of the week is this?

FEBRUARY - 2026

Sun	1	Mon	2	Tue	3	Wed	4	Thu	5	Fri	6	Sat	7
Sun	8	Mon	9	Tue	10	Wed	11	Thu	12	Fri	13	Sat	14
Sun	15	Mon	16	Tue	17	Wed	18	Thu	19	Fri	20	Sat	21
Sun	22	Mon	23	Tue	24	Wed	25	Thu	26	Fri	27	Sat	28

Tuesday

15. [Measuring]

Which landmark is the widest?

A)   B)   C)

C
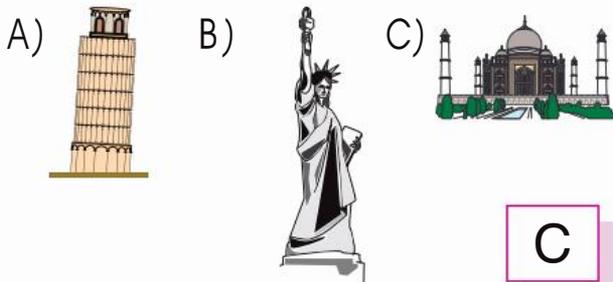
16. [Shapes]

Circle the pyramid.

17. [Location]

Is the cello 'in front of' or 'behind' the blocks?

behind

18. [Statistics / Probability]

Complete the tally table for the number of balls used in:

billiards - 3, snooker - 22, 8-ball - 17

Number of balls used in games

Game	Tally
billiards	|||
snooker	ЖНТ ЖНТ ЖНТ ЖНТ II
8-ball	ЖНТ ЖНТ ЖНТ II

19. [Problem Solving 1] *

Which number is halfway between 3 and 25?

14

20. [Problem Solving 2] *

If you continue the pattern, how many matchsticks would be in the fifth figure?

fig. 1   fig. 2   fig. 3

16
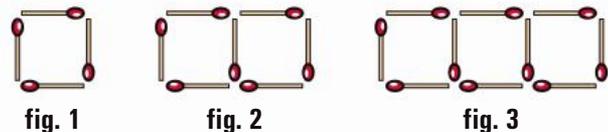
21. [Problem Solving 3] *

So far Ricky's team has one outright and two 1st innings wins. How many points are they on?

cricket result	points
outright win	6
1st innings win	2
outright loss	0

10

MATHS MATE
Term 1 - Sheet 2

R O S E

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Write the numbers before and after 985.

984	985	986

2. [Addition / Subtraction]

Draw lines to join pairs of numbers that add to 20.

13	15	19	14	12
6	8	1	5	7
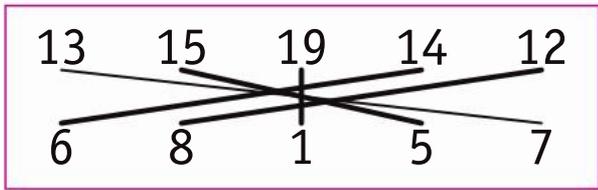
3. [Multiplication / Division]

Complete the multiplication.
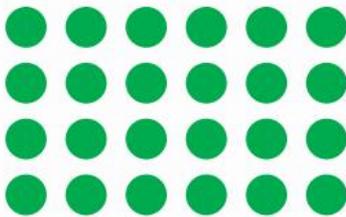
4 rows of 6 =

$$4 \times 6 = 24$$

4. [+ Whole Numbers]

	0	19	3	7	15
+ 4	4	23	7	11	19

5. [− Whole Numbers]

	8	14	21	9	7
− 5	3	9	16	4	2

6. [× Whole Numbers]

	7	2	5	3	9
× 9	63	18	45	27	81

7. [÷ Whole Numbers]

$$5 \div 1 = 5$$

8. [Word Problems]

A roll of 40 one-dollar coins weighs 200 grams. How many grams does one coin weigh? [Write the number sentence.]
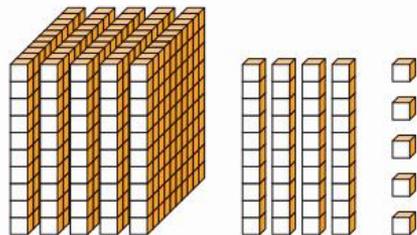
$$200 \div 40 = 5 \quad g$$

9. [Fractions]

Colour two quarters of the square.
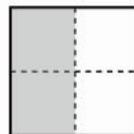
[any 2 small squares]

10. [Place Value]

5	hundreds	4	tens	5	ones

$$= 545$$

11. [Word Numbers]

Write the number 90 in words.

ninety

12. [Money]

Circle the coin with the least value.

13. [Number Patterns]

14 , 17 , 20 , 23 , 26 , **29 , 32**

14. [Time]

How many weekends in May 2021?

MAY - 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Sun	Mon	Tue	Wed	Thu	Fri	Sat 1
Sun 2	Mon 3	Tue 4	Wed 5	Thu 6	Fri 7	Sat 8
Sun 9	Mon 10	Tue 11	Wed 12	Thu 13	Fri 14	Sat 15
Sun 16	Mon 17	Tue 18	Wed 19	Thu 20	Fri 21	Sat 22
Sun 23	Mon 24	Tue 25	Wed 26	Thu 27	Fri 28	Sat 29
Sun 30	Mon 31	Tue	Wed	Thu	Fri	Sat

5

15. [Measuring]

Which is likely to be the longest?

A) javelin
B) sword
C) relay baton

A

16. [Shapes]

Circle the cylinder.
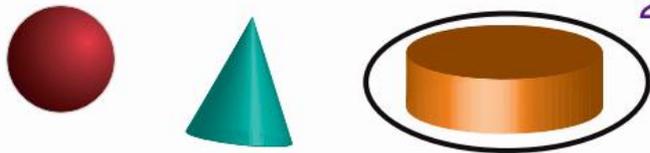
17. [Location]

Is the man 'inside' or 'outside' the bath?

inside

18. [Statistics / Probability]

Complete the tally table.

New stamp sets - 2019

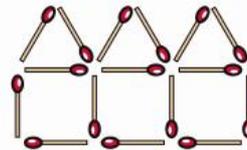| Set	Tally	Number
2019 ANZAC	ЖＴ I	6
Year of the Pig	IIII	4
Sir Edmund Hillary	ЖＴ	5
Colin McCahon	ЖＴ	5
Rock Legends	ЖＴ IIII	9

19. [Problem Solving 1] *

Which number is halfway between 6 and 30?

18

20. [Problem Solving 2] *

This is a row of 3 matchstick houses. How many matchsticks would it take to make a row of 6 matchstick houses?

31

21. [Problem Solving 3] *

Todd's team scored 3 touchdowns and 1 field goal. How many points did Todd's team score?

grid iron score	points
touchdown	6
field goal	3
two-point conversion	2
point after touchdown	1

21

MATHS MATE
Term 1 - Sheet 3

RoSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count backwards from 622.

622	621	620	619	618

2. [Addition / Subtraction]

Circle the numbers that make 10, then add.

$8 + ⑦ + 9 + ③ = \boxed{27}$

3. [Multiplication / Division]
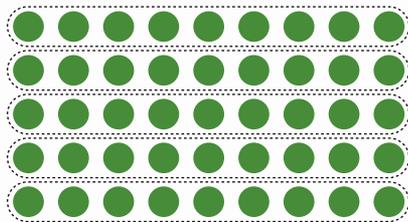
45 divided into 5 groups =

$45 ÷ 5 = \boxed{9}$

4. [+ Whole Numbers]

	10	15	19	3	18
+ 7	17	22	26	10	25

5. [− Whole Numbers]

	8	10	5	26	12
− 3	5	7	2	23	9

6. [× Whole Numbers]

	5	7	12	3	6
× 4	20	28	48	12	24

7. [÷ Whole Numbers]

$70 ÷ 10 = \boxed{7}$

8. [Word Problems]

Lions live in prides of about five adult female lions, two adult male lions, and their cubs. How many adult female lions would live in eight prides?
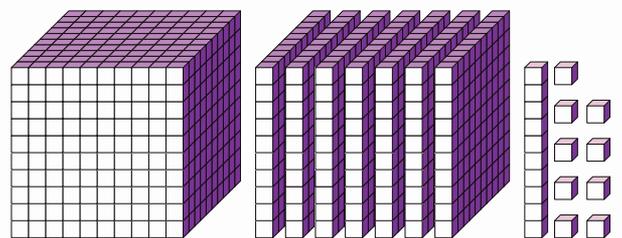[Write the number sentence.]

$8 × 5 = 40$

9. [Fractions]

Draw four more dotted lines to divide the star into fifths.
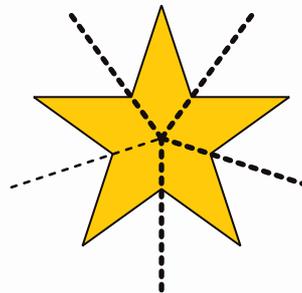
10. [Place Value]

1 thousand 7 hundreds 1 ten 9 ones = $\boxed{1719}$

11. [Word Numbers]

Write the number 72 in words.

seventy-two

12. [Money]

Which note has the least value?

A)

B)

C)

A

13. [Number Patterns]

9 , 13 , 17 , 21 , 25 , **29 , 33**

14. [Time]

What is the date of the second Friday in June 2021?

JUNE - 2021						
Sun	Mon	Tue 1	Wed 2	Thu 3	Fri 4	Sat 5
Sun 6	Mon 7	Tue 8	Wed 9	Thu 10	Fri 11	Sat 12
Sun 13	Mon 14	Tue 15	Wed 16	Thu 17	Fri 18	Sat 19
Sun 20	Mon 21	Tue 22	Wed 23	Thu 24	Fri 25	Sat 26
Sun 27	Mon 28	Tue 29	Wed 30	Thu	Fri	Sat

11 June 2021

OR 11/6/2021

15. [Measuring]

How much shorter is the Mataura River than the Waikato River?

A) Waikato River (North Island) 425 kilometres

B) Mataura River (South Island) 240 kilometres

185 km

16. [Shapes]

What shape is this object?

A) rectangular prism
B) cube
C) square pyramid

A

17. [Location]

Draw a paint brush next to the ladder.
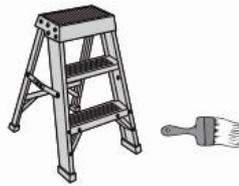
18. [Statistics / Probability]

Complete the tally table. How many vowels are in the word 'stewardesses'?

'Stewardesses' - the longest word typed by the left hand

Vowel	Tally	Number
a	I	1
e	III	3

4

19. [Problem Solving 1] ✱

Which number is halfway between 5 and 31?

18

20. [Problem Solving 2] ✱

This is a 3-section matchstick fence. How many matchsticks would it take to make an 8-section fence?

34
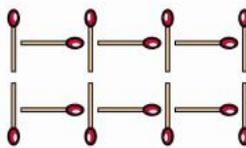
21. [Problem Solving 3] ✱

Marian shot 4 goals from inside the 3-point line and 2 goals from outside the 3-point line. How many points did Marian score?

basketball goals	points
foul shot	1
goal inside the 3-point line	2
goal outside the 3-point line	3

14

MATHS MATE
Term 1 - Sheet 4

R S ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count on from 2376.

2376	2377	2378	2379

2. [Addition / Subtraction]

Circle the numbers that make 10, then add.

⑧+ 7 + 4 +② = **21**

3. [Multiplication / Division]
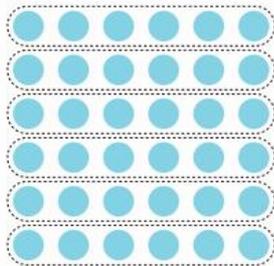
36 divided into 6 groups =

36 ÷ **6** = **6**

4. [+ Whole Numbers]

	6	15	9	14	18
+ 9	15	24	18	23	27

5. [− Whole Numbers]

	20	12	11	29	13
− 7	13	5	4	22	6

6. [× Whole Numbers]

	4	8	9	2	10
× 8	32	64	72	16	80

7. [÷ Whole Numbers]

$3 \div 1 =$ **3**

8. [Word Problems]

A ground squirrel whose usual temperature is 38°C has a hibernation temperature of 4°C. How many degrees less is the squirrel's hibernation temperature than its usual temperature?
[Write the number sentence.]

38 − 4 = 34   °C

9. [Fractions]

Draw lines to divide the sign into thirds. [Hint: Once line has been drawn.]

10. [Place Value]

Write the numeral.

Th H T O
Thousands Hundreds Tens Ones
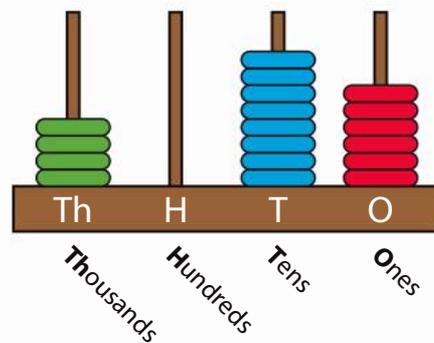
4086

11. [Word Numbers]

Write in numerals:

forty-five

45

12. [Money]

Which note has the greatest value?

A)

B)

C)

C

13. [Number Patterns]

30 , 35 , 40 , 45 , **50 , 55**

14. [Time]

How many week days in September 2021?

SEPTEMBER - 2021						
Sun	Mon	Tue	Wed 1	Thu 2	Fri 3	Sat 4
Sun 5	Mon 6	Tue 7	Wed 8	Thu 9	Fri 10	Sat 11
Sun 12	Mon 13	Tue 14	Wed 15	Thu 16	Fri 17	Sat 18
Sun 19	Mon 20	Tue 21	Wed 22	Thu 23	Fri 24	Sat 25
Sun 26	Mon 27	Tue 28	Wed 29	Thu 30	Fri	Sat

22

15. [Measuring]

How much deeper is the Grand Canyon than Fish River Canyon?

A) Fish River Canyon (Namibia) 550 metres

B) Grand Canyon (USA) 1600 metres

1050 m

16. [Shapes]

What shape is this object?
A) a cylinder
B) a triangular pyramid
C) a triangular prism
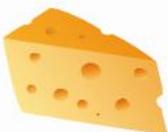
C

17. [Location]

Draw a person above the trampoline.

18. [Statistics / Probability]

Complete the tally table. How many vowels are in the word 'floccinaucinihilipilification'?

'Floccinaucinihilipilification'

The longest word in the English Language

Vowel	Tally	Number
o	‖	2
i	卌 ‖‖‖	9
a	‖	2
u	‖	1

14

19. [Problem Solving 1] ✳

Which number is halfway between 2 and 20?

11

20. [Problem Solving 2] ✳

If you continue the pattern, how many matchsticks would be in the fifth figure?

fig. 1   fig. 2   fig. 3   fig. 4
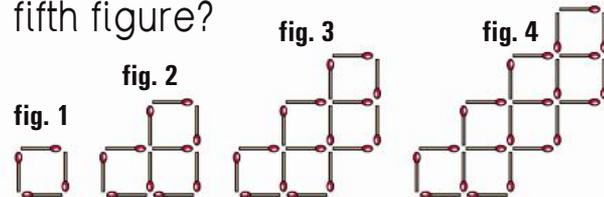
28

21. [Problem Solving 3] ✳

The Crows had 5 wins, 1 draw, 2 losses and 1 bye. How many points did they score?

football result	points per game
win	4
draw	2
loss	0
bye	0

22

MATHS MATE
Term 1 - Sheet 5

RS ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....
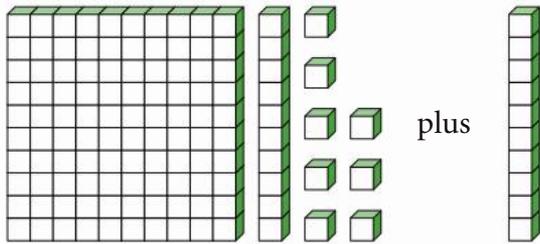
1. [Counting]

When counting by 7s, what is the next number?

7 , 14 , 21 , 28 , 35 , 42 , **49**

2. [Addition / Subtraction]

Complete the addition.

plus

118 + **10** = **128**

3. [Multiplication / Division]

$5 + 5 + 5 + 5 + 5 + 5 =$ **30**

$6 \times 5 =$ **30**

4. [+ Whole Numbers]

	4	17	23	8	15
+ 8	12	25	31	16	23

5. [− Whole Numbers]

	12	8	33	10	24
− 6	6	2	27	4	18

6. [× Whole Numbers]

	4	8	1	9	6
× 5	20	40	5	45	30

7. [÷ Whole Numbers]

$24 \div 3 =$ **8**

8. [Word Problems]

Since 1990, 34 new countries have been created. Altogether now there are 195 countries in the world. How many countries were there before 1990?
[Write the number sentence.]

195 − 34 = 161

9. [Fractions]

Colour two thirds of the hearts.

[any 6 hearts]

10. [Place Value]

Expand 437.

4 hundreds 3 tens 7 ones

11. [Word Numbers]

Write in numerals:

seven hundred

700

12. [Money]

How much money in total?

$ 3.10

13. [Number Patterns]

22 , 20 , 18 , 16 , 14 , __12__ , __10__

14. [Time]

Yesterday was Tuesday. What day is tomorrow?

Thursday

15. [Measuring]

Which object is likely to weigh the least?

A) basketball
B) baseball
C) tennis ball

C

16. [Shapes]

Circle the shape that does **not** belong.

17. [Location]

Whose image is to the left of Nelson Mandela?
[As seen from your perspective.]

Sir Edmund Hillary   Nelson Mandela   Thomas Edison

Sir Edmund Hillary

18. [Statistics / Probability]

How many books in The Black Stallion series?

Books in a Series

Fudge	The Black Stallion	Billabong	The Borrowers

Each = 5 books

20

19. [Problem Solving 1] *

Fill in the missing numbers.

6   8   10

3   4   5   6   7   8

0   2   4   6
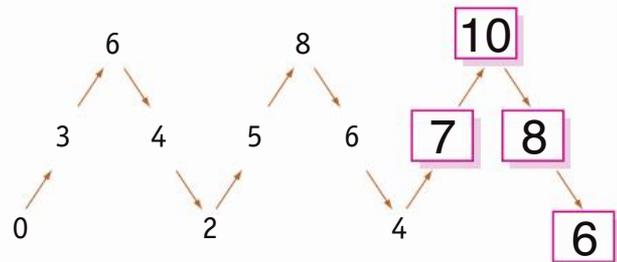
20. [Problem Solving 2] *

A group of children each rode a horse to the bottom of the canyon. They had 20 eyes and 30 legs between them. How many horses were there?

5

21. [Problem Solving 3]

Bron made a cube using this net.

```
      F
L  H  Y  E
      N
```

Which cube is Bron's?

A) Y N   B) H F   C) N

C

MATHS MATE
Term 1 - Sheet 6

ROSE
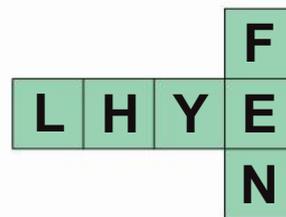
Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Use the hens to show counting by 8s.

32 24 8 48 40 16
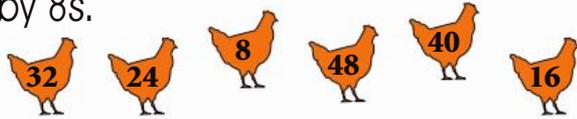
8	16	24	32	40	48

2. [Addition / Subtraction]

Complete the addition.

plus
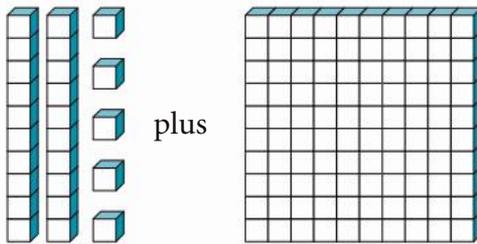
25	+	100	=	125

3. [Multiplication / Division]

$4 + 4 + 4 + 4 + 4 + 4 + 4 =$ **28**

$7 \times 4 =$ **28**

4. [+ Whole Numbers]

	9	17	3	26	12
+ 9	18	26	12	35	21

5. [− Whole Numbers]

	30	14	21	7	12
− 5	25	9	16	2	7

6. [× Whole Numbers]

	5	2	9	7	10
× 8	40	16	72	56	80

7. [÷ Whole Numbers]

$30 \div 5 =$ **6**

8. [Word Problems]

The New Zealand flag has 4 stars, the USA flag has 50 stars and the Algerian flag has 1 star. All three flags were raised at the 2016 Rio Olympics medal ceremony for the men's 1500 m race.

How many stars were on the raised flags altogether?
[Write the number sentence.]

$4 + 50 + 1 = 55$

9. [Fractions]

Colour three quarters of the clubs.
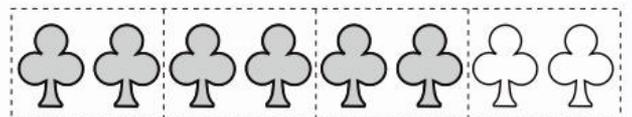
[any 6 clubs]

10. [Place Value]

Expand 528.

5 hundreds **2** tens **8** ones

11. [Word Numbers]

Write in numerals:

nine hundred and five   **905**

12. [Money]

How much money in total?

$ 20.70

13. [Number Patterns]

23 , 20 , 17 , 14 , 11 , 8 , 5

14. [Time]

Which day is the first day of the weekend?

Saturday

15. [Measuring]

Which object does **not** weigh about 1 kilogram?

A) swag
B) pillow
C) sheet

A

16. [Shapes]

Circle the shape that does **not** belong.
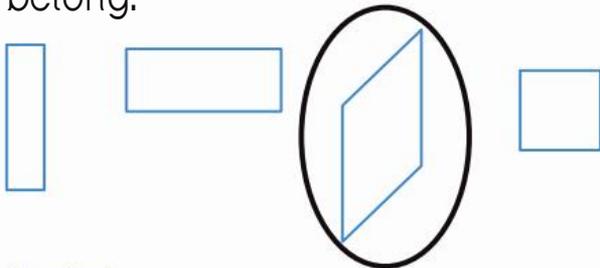
17. [Location]

Which letterbox is directly to the right of Maradona? [As seen from your perspective.]

Beckham   Ronaldo   Maradona   Kewell   Pele

Kewell

18. [Statistics / Probability]

How long is a cow's tongue?

Length of tongue

Human	
Salamander	
Dog	
Cow	
Snake	
Horse	

each = 5 cm

30 cm

19. [Problem Solving 1] *

Fill in the missing numbers.

9   15   21

5   8   11   14   17   20

1   7   13   19
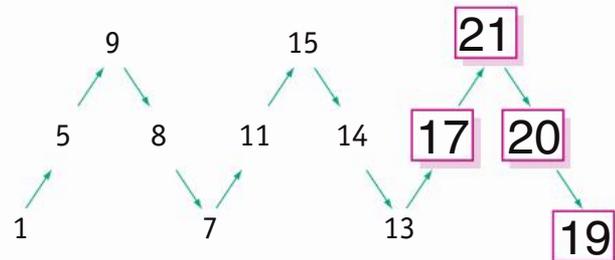
20. [Problem Solving 2] *

The pelicans and rabbits at the zoo have a total of 24 eyes and 44 legs. How many rabbits are at the zoo?

10

21. [Problem Solving 3]

Zac made a cube using this net.
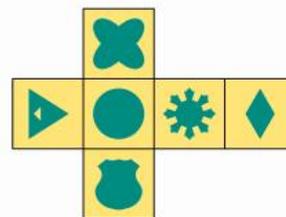
Which cube is Zac's?

A)   B)   C)

A

MATHS MATE
Term 1 - Sheet 7

RcS ROSE

1. [Counting]

Count by 4s.

4	8	12	16	20	24

2. [Addition / Subtraction]

Complete the subtraction.
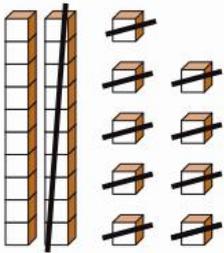
$29 - 19 =$ 10

3. [Multiplication / Division]

$36 - 9 - 9 - 9 - 9 = 0$

$36 \div 9 =$ 4

4. [+ Whole Numbers]

	29	0	14	37	2
+ 3	32	3	17	40	5

5. [– Whole Numbers]

	10	13	16	31	27
– 8	2	5	8	23	19

6. [× Whole Numbers]

	5	7	1	8	0
× 7	35	49	7	56	0

7. [÷ Whole Numbers]

$42 \div 6 =$ 7

8. [Word Problems]

There are 60 minutes in an hour. How many minutes in a 4-hour TV mini-series?
[Write the number sentence.]

$4 \times 60 = 240$ min

9. [Fractions]

Write a fraction for the shaded part of the group.

$\dfrac{4}{5}$

10. [Place Value]

Expand 496 by filling in the place value table.

Hundreds	Tens	Ones
4	9	6

11. [Word Numbers]

Write in numerals:

six hundred and eighty   680

12. [Money]

How much money in total?

$ **27.10**

13. [Number Patterns]

33 , 28 , 23 , 18 , 13 , **8** , **3**

14. [Time]

My birthday is on the 8/10/1996.
In which month was I born?

October

15. [Measuring]

What is the total volume of an egg?

egg yolk = 22 mL
egg white = 30 mL

52 mL

16. [Shapes]

Circle the shape that does **not** belong.

17. [Location]

Who has the stocking in the middle?

Harry

18. [Statistics / Probability]

Which city has 12 lines in their train system?

Train systems - Number of Lines

Beijing - Metro	🚆🚆🚆🚆
London - Underground	🚆🚆🚆🚆🚆
Rome - Metro	🚆
New York - Subway	🚆🚆🚆🚆🚆
each 🚆 = 3 lines	

London

19. [Problem Solving 1] *

Fill in the missing numbers.

20   32   **44**

10   16   22   28   **34** **40**

0   12   24   **36**
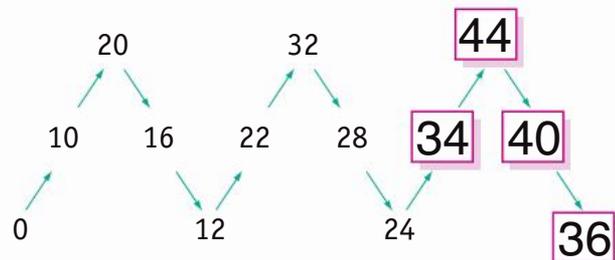
20. [Problem Solving 2] *

Rachel only has one-dollar and two-dollar coins in her purse. If she has a total of $28, how many two-dollar coins does she have?

8

21. [Problem Solving 3]

Di made a pyramid using this net.

Which pyramid is Di's?

A)   B)   C)
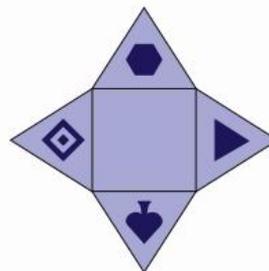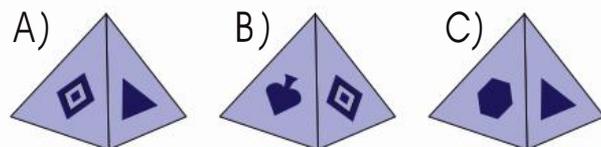
C

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

---

1. [Counting]

Count by 9s.

9	18	27	36	45	54

2. [Addition / Subtraction]

Complete the subtraction.
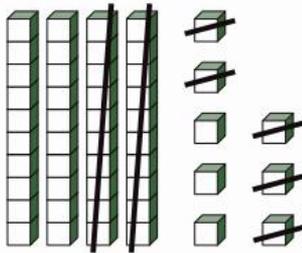
$48 - 25 = \boxed{23}$

3. [Multiplication / Division]
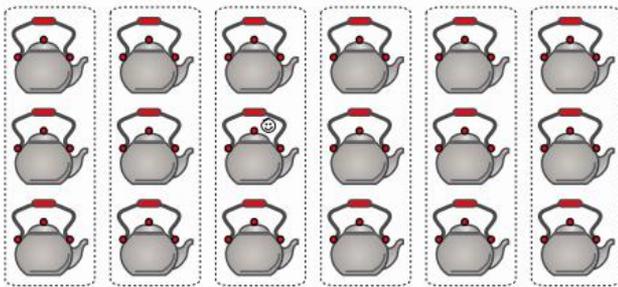
$18 - 3 - 3 - 3 - 3 - 3 - 3 = 0$

$18 \div 3 = \boxed{6}$

4. [+ Whole Numbers]

	19	13	37	6	15
+ 5	24	18	42	11	20

5. [− Whole Numbers]

	27	12	10	8	33
− 4	23	8	6	4	29

6. [× Whole Numbers]

	3	0	7	4	9
× 9	27	0	63	36	81

7. [÷ Whole Numbers]

$81 \div 9 = \boxed{9}$

8. [Word Problems]

There are 24 contestants in the battle phase of 'The Voice' music contest. They are equally divided into 4 teams. How many contestants does each team have? [Write the number sentence.]

$$24 \div 4 = 6$$

9. [Fractions]

Write a fraction for the shaded part of the group.
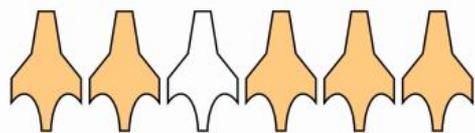
$$\frac{5}{6}$$

10. [Place Value]

Expand 2317 by filling in the place value table.

Thousands	Hundreds	Tens	Ones
2	3	1	7

11. [Word Numbers]

Write in numerals:

eight hundred and twenty-seven

$\boxed{827}$

12. [Money]

How much money in total?

$ 61.60

13. [Number Patterns]

110 , 100 , 90 , 80 , 70 , 60

14. [Time]

It is April in Auckland. Which season is it?

autumn

15. [Measuring]

What is the total weight of a stack of 20 newspapers?

newspaper = 120 grams

2400 g

16. [Shapes]

Circle the shape that does **not** belong.
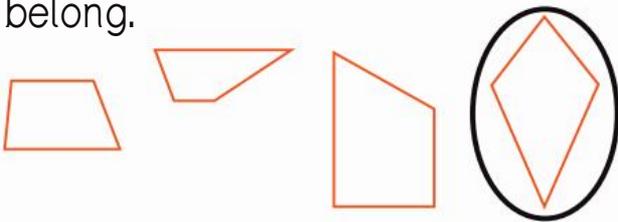
17. [Location]

Looking at the candelabra, draw a flame on the candle furthest to the right.
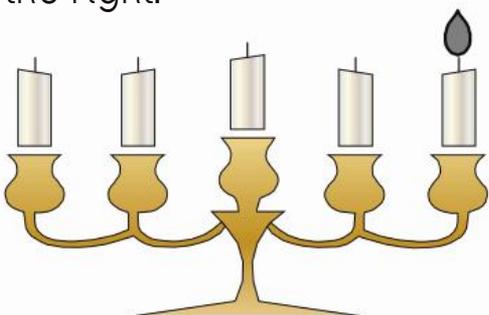
18. [Statistics / Probability]

How many teeth does a human child have?

Number of teeth

Rabbit	
Foal	
Human (Child)	
Human (Adult)	

each = 4 teeth

20

19. [Problem Solving 1] *

Fill in the missing numbers.

9   45   369

3   7   15   43   123   367

1   5   41   365
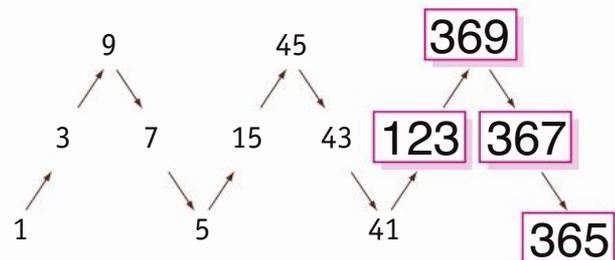
20. [Problem Solving 2] *

Octopuses, fish and mermaids featured in the school play. Altogether there were 24 eyes, 8 tails and 38 arms. How many mermaids were in the play?

3

21. [Problem Solving 3]

Lin made a prism using this net.

Which prism is Lin's?

A)   B)   C)

B

MATHS MATE

Term 2 - Sheet 1
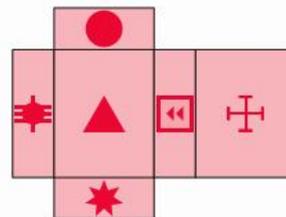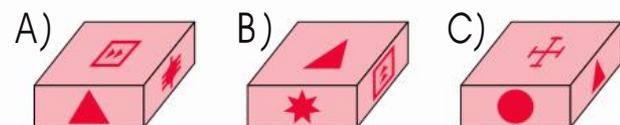
Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count backwards by 100s.

900	800	700	600	500

2. [Addition / Subtraction]

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
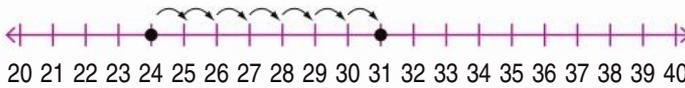
$7 + 24 =$ **31**

3. [Multiplication / Division]

Double this number of circles by first drawing them.

$2 \times 5 =$ **10**

4. [+ Whole Numbers]

$18 + 24 =$ **42**

5. [– Whole Numbers]

$39 - 17 =$ **22**

6. [× Whole Numbers]

	5	2	8	6	7
× 3	15	6	24	18	21

7. [÷ Whole Numbers]

	56	24	72	96	40
÷ 8	7	3	9	12	5

8. [Word Problems]

Francis climbed the first 190 steps of the Leaning Tower of Pisa, rested, then climbed the remaining 103 steps. How many steps are there to the top of the Leaning Tower of Pisa?
[Write the number sentence.]

$190 + 103 = 293$

9. [Fractions]

Elena has watched one third of the movie. What fraction of the movie remains to be viewed?

$\dfrac{2}{3}$

10. [Place Value]

Write the number:

8 thousands + 9 hundreds + 1 ten + 7 ones =

8917

11. [Word Numbers]

Write the number 302 in words.

three hundred and two

12. [Money]

Circle the exact money needed to buy the cheeseburger.

$2.80

13. [Number Patterns]

33 , 43 , 53 , 63 , 73 , **83** , **93**

14. [Time]

Use 'to' or 'past' to complete the time.

A quarter **past** one.

15. [Measuring]

A gold nugget was discovered in Ross, New Zealand in 1909 weighing nearly 3 kilograms. How many grams is this? [1 kg = 1000 g]
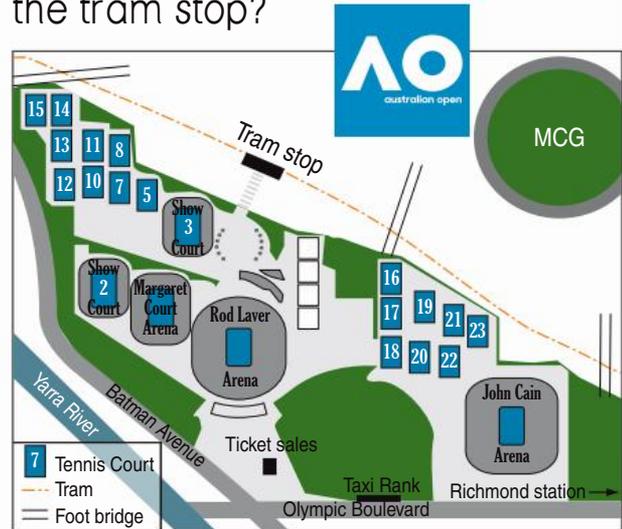
A) 30   B) 300
C) 3000   D) 3

C

16. [Shapes]

Name the two shapes used to make this figure.
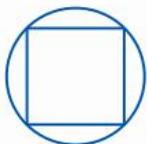
circle and **square**

17. [Location]

Which tennis court is closest to the tram stop?

Show Court 3

18. [Statistics / Probability]

What is the chance ...

"Ella, who is 10, will be 23 next birthday."

A) possible
B) impossible

B

19. [Problem Solving 1]

6 groups of 5 is the same as

3 groups of **10**

20. [Problem Solving 2] *

Complete the circles, so that the sum of any three consecutive digits is 10.

6 2 **2** **6** **2** **2** **6** **2** **2** 6

21. [Problem Solving 3] *

Jared has 16 marbles. He gives 4 marbles to his best friend. Then he and his sister share the rest equally. How many marbles does Jared get?

6

MATHS MATE
Term 2 - Sheet 2

RoSE

Name: ....

Due Date: ..../ ..../ ....

Parent's Signature: ....

1. [Counting]

Count forwards by 1000s.

3000	4000	5000	6000

2. [Addition / Subtraction]

40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

$45 + 9 =$ **54**

3. [Multiplication / Division]

Double this number of triangles by first drawing them.
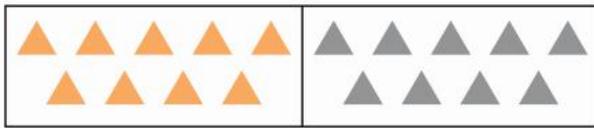
2 $\times$ **9** $=$ **18**

4. [+ Whole Numbers]

$36 + 27 =$ **63**

5. [− Whole Numbers]

$58 - 14 =$ **44**

6. [× Whole Numbers]

	4	1	9	3	8
× 6	24	6	54	18	48

7. [÷ Whole Numbers]

	36	15	27	30	21
÷ 3	12	5	9	10	7

8. [Word Problems]

There are 4 netball teams left in the finals. If each team has 7 players on the court, how many players are left in the finals? [Write the number sentence.]

$4 \times 7 = 28$

9. [Fractions]

One quarter of the lawn has been mown. What fraction of the lawn has not been mown?

$\dfrac{3}{4}$

10. [Place Value]

Write the number:

2 thousands + 5 hundreds + 4 tens + 8 ones =

2548

11. [Word Numbers]

Write the number 740 in words.

seven hundred and forty

12. [Money]

Circle the exact money needed to buy the cupcake.

$4.30
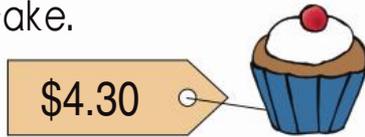
13. [Number Patterns]

34 , 38 , 42 , 46 , 50 , | 54 , 58 |

14. [Time]

Use 'to' or 'past' to complete the time.

Ten | to | two.

15. [Measuring]

A tiger snake can be 2 metres long. How many centimetres is this? [100 cm = 1 metre]

A) 20 B) 100
C) 200 D) 2000

| C |

16. [Shapes]

Name the two shapes used to make this figure.
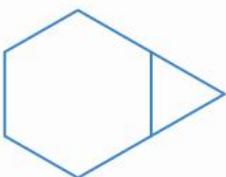
| hexagon and triangle |

17. [Location]

Which player was born in a city located between Amsterdam and Marseille?

Birthplace of Famous European Soccer Players

Glasgow
Dalglish
London
Beckham
Amsterdam
Cruyff
Paris
Henry
Marseille
Rome
Nesta
Zidane

| Henry |

18. [Statistics / Probability]

What is the chance ...

"There will be a lunch break at school tomorrow."

A) certain
B) uncertain

| A |

19. [Problem Solving 1]

14 + 18 is the same as 16 + | 16 |

20. [Problem Solving 2] *

Complete the circles, so that the sum of any three consecutive digits is 10.

4 4 2 4 4 2 4 4 2 4

21. [Problem Solving 3] *

Jude bought two dozen eggs. He tripped and smashed 10 of them. How many eggs are left?

| 14 |

MATHS MATE

Term 2 - Sheet 3

R S O ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

---

1. [Counting]

Count on by 6s from 18.

18	24	30	36	42	48

2. [Addition / Subtraction]

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
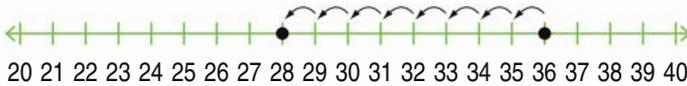
$36 - 8 = \boxed{28}$

3. [Multiplication / Division]

Complete the multiplication.
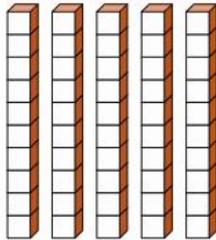
$5 \times 10 = \boxed{50}$

4. [+ Whole Numbers]

$53 + 48 = \boxed{101}$

5. [– Whole Numbers]

$86 - 23 = \boxed{63}$

6. [× Whole Numbers]

	7	5	2	6	9
×7	49	35	14	42	63

7. [÷ Whole Numbers]

	20	8	28	36	48
÷4	5	2	7	9	12

8. [Word Problems]

The average male lion weighs around 180 kilograms, while the average female lion weighs 50 kilograms less. How much does a female lion weigh? [Write the number sentence.]

$180 - 50 = 130 \text{ kg}$

9. [Fractions]

Dallin has eaten three eighths of the pizza. What fraction of the pizza remains?

$\dfrac{5}{8}$

10. [Place Value]

Write the value of each digit.

$236 = 200 + \boxed{30} + \boxed{6}$

11. [Word Numbers]

Write the number 916 in words.

nine hundred and sixteen

12. [Money]

Circle the exact money needed to buy the box of chocolates.

$8.50
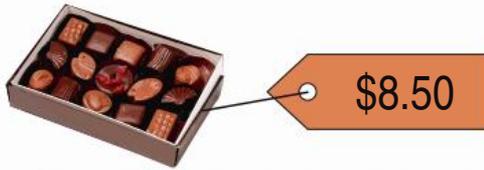
13. [Number Patterns]

27 , 33 , 39 , 45 , 51 , **57** , **63**

14. [Time]

Draw hands on the clock to show twenty-five to nine.

15. [Measuring]

The fish tank holds 9000 mL of water. How many 1 litre jugs of water are needed to fill the tank?
[1000 mL = 1 litre]

A) 9   B) 90
C) 900   D) 9000

A

16. [Shapes]

Sketch a kite.
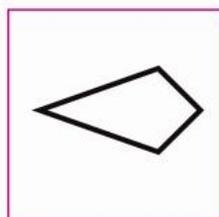
17. [Location]

Which building is on the corner of Pall Mall and Williamson St?
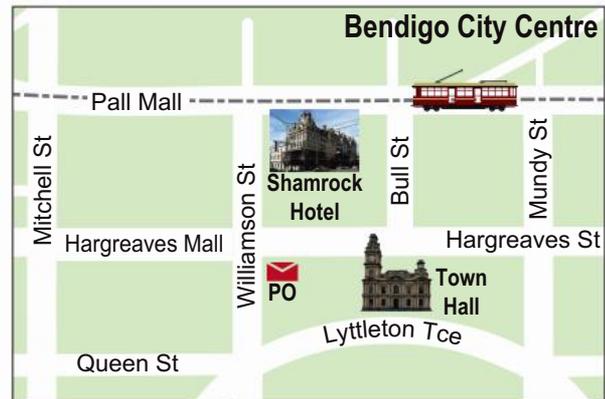
Shamrock Hotel

18. [Statistics / Probability]

What is the chance ...

"A person will ride a bike backwards around the world."

A) likely
B) unlikely

B

19. [Problem Solving 1]

4 groups of 6 is the same as

3 groups of **8**

20. [Problem Solving 2] ∗

Complete the circles, so that the sum of any three consecutive digits is 10.

① ③ ⑥ ① ③ ⑥ ① ③ ⑥ ①

21. [Problem Solving 3] ∗

Nimrod found an old plank on the beach. He cut off 14 cm where the plank was rotten. Then he cut the remaining plank into 3 equal pieces. Each piece is now 15 cm long. How long was the plank he found on the beach?

59 cm

MATHS MATE

Term 2 - Sheet 4

ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count on by 8s from 24.

24	32	40	48	56	64

2. [Addition / Subtraction]

30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

$$42 - 5 = \boxed{37}$$

3. [Multiplication / Division]

Complete the multiplication.

$$2 \times 100 = \boxed{200}$$

4. [+ Whole Numbers]

$$76 + 39 = \boxed{115}$$

5. [– Whole Numbers]

$$79 - 32 = \boxed{47}$$

6. [× Whole Numbers]

	2	4	5	8	3
× 4	8	16	20	32	12

7. [÷ Whole Numbers]

	42	21	63	56	77
÷ 7	6	3	9	8	11
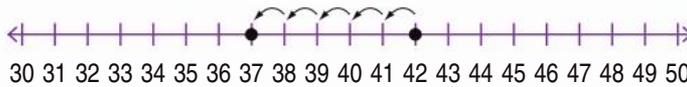
8. [Word Problems]

Every four years, the extra number of hours that add up to the standard length of a year is 24. How many extra hours are added to the standard length of each year?

[Write the number sentence.]

$$24 \div 4 = 6 \quad h$$
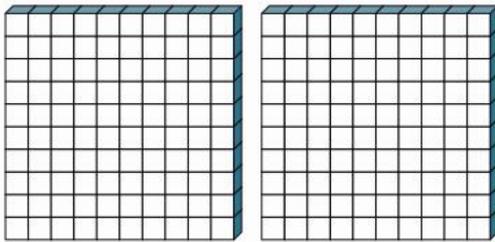
9. [Fractions]

Fabio has run five eighths of the race. What fraction of the race remains?

$$\frac{3}{8}$$

10. [Place Value]

Write the value of each digit.

$$1973 = \boxed{1000 + 900 + 70 + 3}$$

11. [Word Numbers]

Write the number 827 in words.

eight hundred and twenty-seven

12. [Money]

Circle the exact money needed to buy the sheet music.

$9.50

13. [Number Patterns]

2 , 10 , 18 , 26 , 34 , **42 , 50**

14. [Time]

Draw hands on the clock to show twenty past eight.
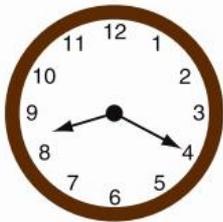
15. [Measuring]

A smart phone is 150 millimetres long. How many centimetres is this? [1 cm = 10 millimetres]

A) 5   B) 15
C) 150   D) 1500   **B**

16. [Shapes]

Draw a rectangle with a side length of 6 cm and a width of 3 cm on the grid.
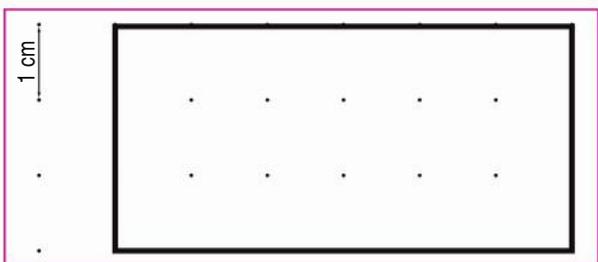
17. [Location]

Which city is to the east of Nanjing?

Shanghai

18. [Statistics / Probability]

White and red marbles are in a bowl. You choose a marble without looking. How likely is it that you will pick a red one?

A) certain
B) likely
C) unlikely
D) impossible   **C**
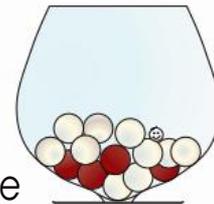
19. [Problem Solving 1]

19 + 22 is the same as 20 + **21**

20. [Problem Solving 2] *

Complete the circles, so that the sum of any three consecutive digits is 10.

②⑦①②⑦①②⑦①②

21. [Problem Solving 3] *

The farmer has 3 paddocks. Each paddock has 40 cows. The farmer sold 50 cows. How many cows are left?   **70**

MATHS MATE

Term 2 - Sheet 5

RoSE

1. [Counting]

Complete the skip counting pattern.

9   12   **15**   18   **21**   **24**   27

2. [Addition / Subtraction]

How much must be added to 8 to make 17?

$+2$ $+7$

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
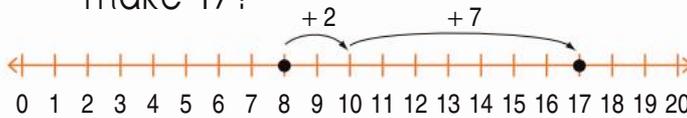
$17 - 8 =$ **9**

3. [Multiplication / Division]

✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
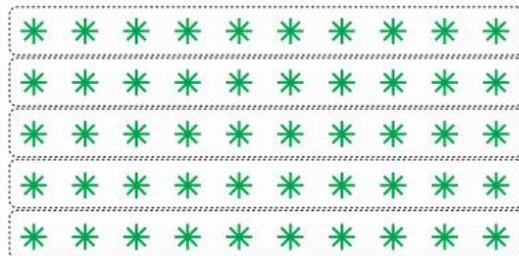
50 divided into groups of $10 =$

$50 \div 10 =$ **5**

4. [+ Whole Numbers]

$$\begin{array}{r} 3\,9 \\ +\,3\,6 \\ \hline \mathbf{75} \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 7\,3 \\ -\,2\,2 \\ \hline \mathbf{51} \end{array}$$

6. [× Whole Numbers]

$4 \times 90 =$ **360**

7. [÷ Whole Numbers]

	9	30	12	6	27
÷3	3	10	4	2	9

8. [Word Problems]

Both a human and a giraffe have 7 vertebrae (bones) in their necks. How many vertebrae are in the necks of 4 giraffes?
[Write the number sentence.]

$$4 \times 7 = 28$$

9. [Fractions]

Show with an arrow $1\frac{1}{4}$ on the number line.

1   2
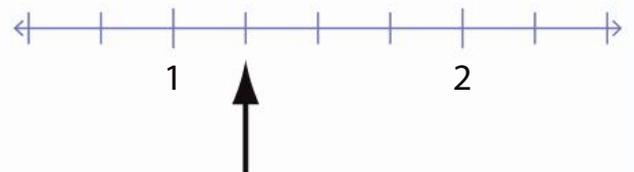
10. [Place Value]

In the number 106 which of the digits 1, 0 or 6 lies in the hundreds place?

1

11. [Word Numbers]

Write in numerals:

eight thousand and six   **8006**

12. [Money]

You have $16.20 Which two items can you afford to buy?

A) B) C)

$7.99 $8.05 $8.50

A & B
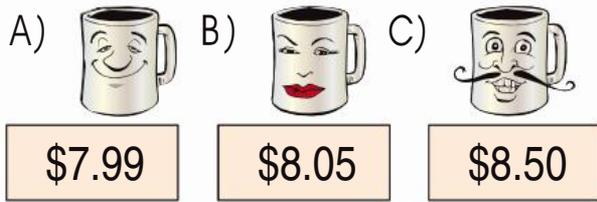
13. [Number Patterns]

32 , 28 , 24 , 20 , 16 ,   12 , 8

14. [Time]

Which time is twelve minutes past seven?

A) 12:07   B) 7:12   C) 7:21

B

15. [Measuring]

Use a ruler to measure the length of the feather in centimetres.

7 cm

16. [Shapes]
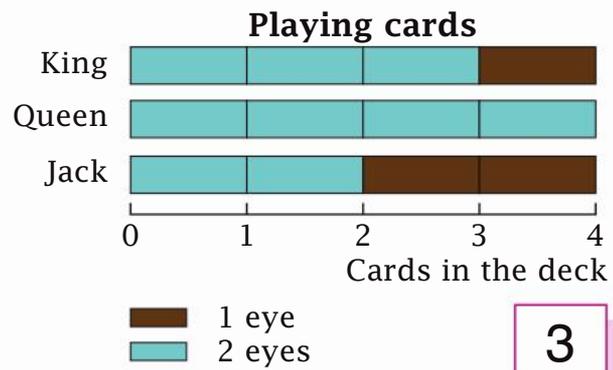
How many vertices does a kite have?
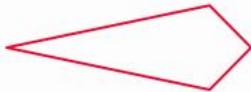
4

17. [Location]

Which animal is in the fourth column from the left and on the top row?
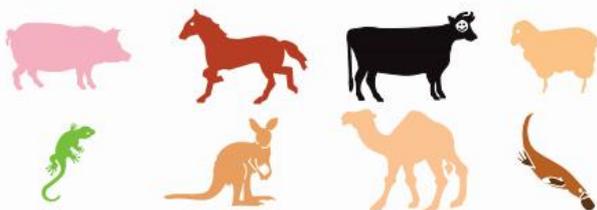
sheep

18. [Statistics / Probability]

In a deck of playing cards, how many Kings have 2 eyes?

Playing cards

King
Queen
Jack

0   1   2   3   4
Cards in the deck

■ 1 eye
■ 2 eyes

3

19. [Problem Solving 1] ✳

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 14 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

3
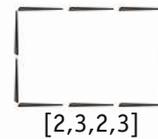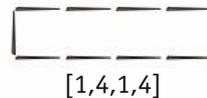
20. [Problem Solving 2]

What is the largest 4-digit number with digits that add to 25?

9970

21. [Problem Solving 3] ✳

Four students swam in a race:

• Liam finished second
• Jason is behind Mia
• Jason is ahead of Kristin

Who came last in the race?

Kristin

MATHS MATE
Term 2 - Sheet 6

ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Complete the skip counting pattern.

4 8 12 **16** **20** **24** 28

2. [Addition / Subtraction]

How much must be added to 26 to make 34?

+4   +4

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
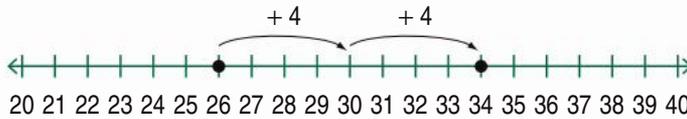
$34 - 26 =$ **8**

3. [Multiplication / Division]

✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳ ✳
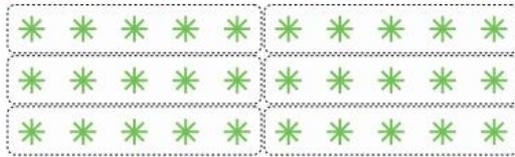
30 divided into groups of 5 =

30 ÷ **5** = **6**

4. [+ Whole Numbers]

$$\begin{array}{r} 3\ 4 \\ 3\ 7 \\ +\ 2\ 2 \\ \hline 9\ 3 \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 5\ 8 \\ -\ 2\ 5 \\ \hline 3\ 3 \end{array}$$

6. [× Whole Numbers]

$60 \times 5 =$ **300**

7. [÷ Whole Numbers]

	10	16	6	12	14
÷ 2	5	8	3	6	7

8. [Word Problems]

A giant tortoise typically lives for one century. A cat's life span is 4 times smaller. What is a cat's life span?
[Write the number sentence.]

$100 \div 4 =$ **25** years

9. [Fractions]

Write a mixed number to match this picture.
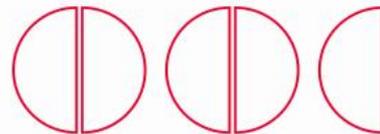
$2\frac{1}{2}$

10. [Place Value]

In the number 7284 which of the digits 7, 2, 8 or 4 lies in the tens place?

8

11. [Word Numbers]

Write in numerals:

nine thousand and fifty-eight

9058

12. [Money]

You have $80. Which two pairs of items can you afford to buy?

A) B) C)

| $35.70 | $55.05 | $43.95 |

A & C

13. [Number Patterns]

41 , 35 , 29 , 23 , 17 , **11** , **5**

14. [Time]

Which time is shown on the watch?

A) 12:50
B) 10:05
C) 12:05

A

15. [Measuring]

What is the volume of the water?

40 mL
30 mL
20 mL
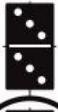10 mL
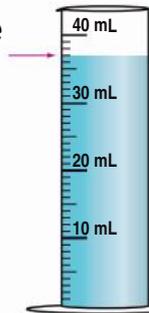
37 mL

16. [Shapes]

How many sides does a hexagon have?

6

17. [Location]

Circle the domino which is the same as the one in column 3, row 3.

Row 3
Row 2
Row 1

Column 1   Column 2   Column 3

18. [Statistics / Probability]

Which group of vertebrates has 10 000 species in the world?

Total number of vertebrate species in the world

mammals
birds
reptiles
amphibians
fishes

0   5000   10 000   15 000   20 000   25 000   30 000
Number of species
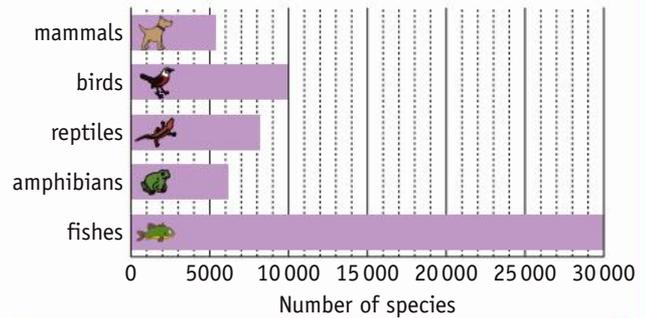
birds

19. [Problem Solving 1] ✴

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 26 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

6
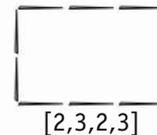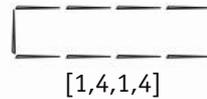
20. [Problem Solving 2]

What is the smallest 4-digit number with digits that add to 11?

1019

21. [Problem Solving 3] ✴

• Con is older than Eve
• Eve is older than Bianca
• Daniel is older than Eve
• Andrea is younger than Con
• Andrea is older than Daniel

Who is the third oldest person?

Daniel

MATHS MATE
Term 2 - Sheet 7

RS ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....
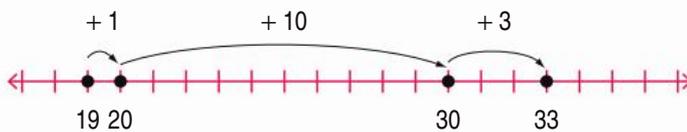
1. [Counting]

Complete the skip counting pattern.

20 30 **40** 50 60 **70** **80** 90

2. [Addition / Subtraction]

Subtract by first building up from 19 to 20.

+ 1   + 10   + 3

19 20   30   33

$$33 - 19 = \boxed{14}$$

3. [Multiplication / Division]

Complete the multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$$9 \times 7 = \boxed{63}$$

4. [+ Whole Numbers]

$$\begin{array}{r} 4\,5\,5 \\ +\,1\,6\,7 \\ \hline \boxed{6\,2\,2} \end{array}$$

5. [– Whole Numbers]

$$\begin{array}{r} 3\,2 \\ -\,1\,5 \\ \hline \boxed{1\,7} \end{array}$$

6. [× Whole Numbers]

$$80 \times 6 = \boxed{480}$$

7. [÷ Whole Numbers]

20	15	45	30	50
÷ 5 **4**	**3**	**9**	**6**	**10**

8. [Word Problems]

In the 2016 Rio Olympics, 65 Olympic records and 19 world records were set. How much bigger was the Olympic record tally than the world record tally? [Write the number sentence.]

$$65 - 19 = 46$$

9. [Fractions]

Write a mixed number to match this picture.

$$1\frac{3}{4}$$

10. [Place Value]

In which number does the digit 9 have lesser value?

A) 1249   B) 193

$$\boxed{A}$$
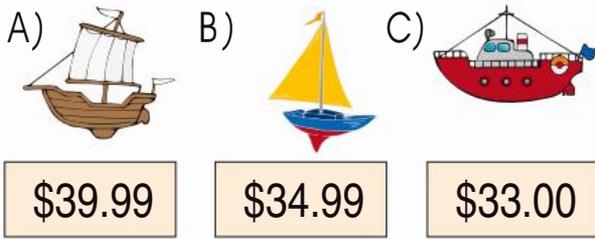
11. [Word Numbers]

Write in standard form:

one thousand three hundred and twenty-seven

$$\boxed{1327}$$

12. [Money]

You have $70. Which two items can you afford to buy?

A) $39.99
B) $34.99
C) $33.00

B & C

13. [Number Patterns]

56 , 48 , 40 , 32 , 24 , 16 , 8
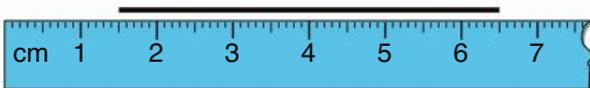
14. [Time]

Which time is a quarter to four?
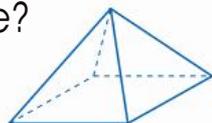
A) 4:15
B) 4:45
C) 3:45

C

15. [Measuring]

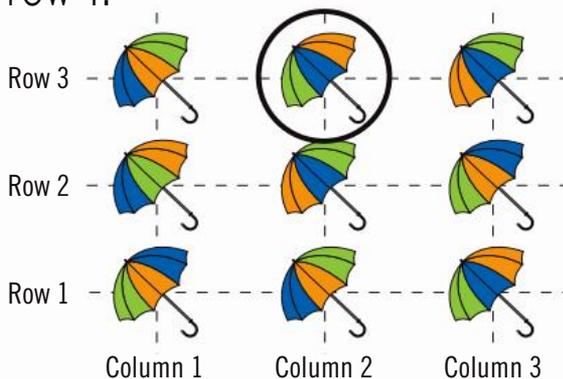What is the length of the line?

5 cm

16. [Shapes]

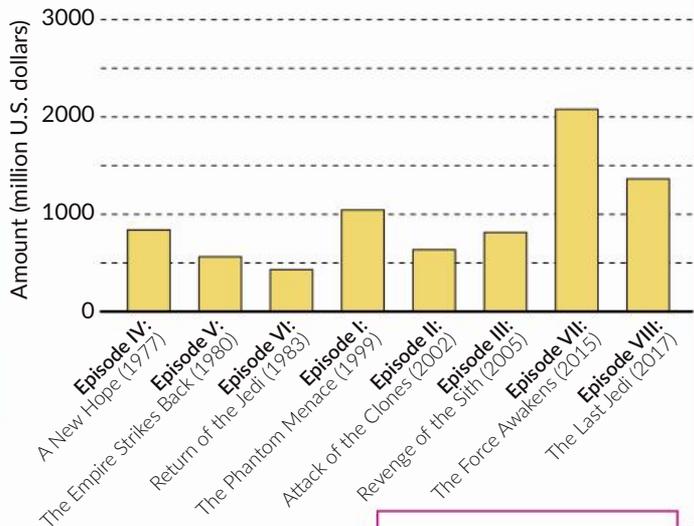How many edges does a square pyramid have?

8

17. [Location]

Circle the umbrella which is the same as the one in column 3, row 1.

Row 3
Row 2
Row 1

Column 1   Column 2   Column 3

18. [Statistics / Probability]

Which 'Star Wars' episode raised closest to 1 billion dollars?

Global Box Office Revenue - Star Wars Movies

Amount (million U.S. dollars)

3000
2000
1000
0

Episode IV: A New Hope (1977)
Episode V: The Empire Strikes Back (1980)
Episode VI: Return of the Jedi (1983)
Episode I: The Phantom Menace (1999)
Episode II: Attack of the Clones (2002)
Episode III: Revenge of the Sith (2005)
Episode VII: The Force Awakens (2015)
Episode VIII: The Last Jedi (2017)

Episode I

19. [Problem Solving 1] *

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 30 toothpicks? [All toothpicks must be used each time.]
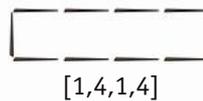
[1,4,1,4]

[2,3,2,3]

7

20. [Problem Solving 2]

What is the largest, odd 4-digit number with digits that add to 22?

9931

21. [Problem Solving 3] *

Four horses ran in a race:

- Bart finished third
- Dee finished ahead of Bart and Caper
- Air finished ahead of Caper
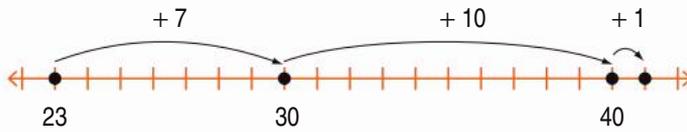- Air finished behind Dee

Which horse won the race?

Dee

MATHS MATE
Term 2 - Sheet 8

ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Complete the skip counting pattern.

21 28 35 **42** **49** 56 **63** 70

2. [Addition / Subtraction]

Subtract by first building up from 23 to 41.

$+7$ $+10$ $+1$

23   30   40

$41 - 23 =$ **18**

3. [Multiplication / Division]

Complete the multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$6 \times 8 =$ **48**

4. [+ Whole Numbers]

```
   6 6 4
 + 1 3 9
 -------
```

803

5. [− Whole Numbers]

```
   4 6
 − 2 8
 -----
```

18

6. [× Whole Numbers]

$7 \times 90 =$ **630**

7. [÷ Whole Numbers]

	21	42	35	56	63
÷ 7	**3**	**6**	**5**	**8**	**9**

8. [Word Problems]

During World War I New Zealand suffered 18 052 military deaths, compared to 11 900 deaths in World War II. How many military deaths did New Zealand suffer in total in both world wars?
[Write the number sentence.]

$18\,052 + 11\,900 =$ **29 952**

9. [Fractions]

What mixed number is shown by the arrow on the number line?

1   2   3

$2\frac{1}{4}$

10. [Place Value]

In which number does the digit 8 have greater value?
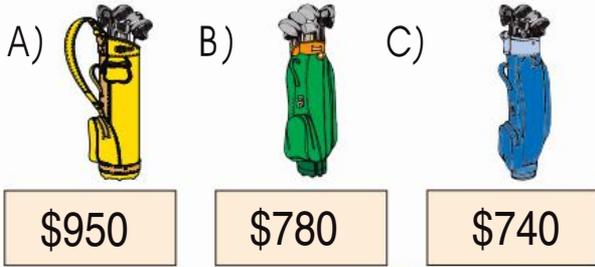
A) 3874   B) 5681

A

11. [Word Numbers]

Write in standard form:

seven thousand two hundred

7200

12. [Money]

You have $1600. Which two items can you afford to buy?

A)   B)   C)

| $950 | $780 | $740 |

B & C

13. [Number Patterns]

43 , 36 , 29 , 22 , 15 , **8 , 1**

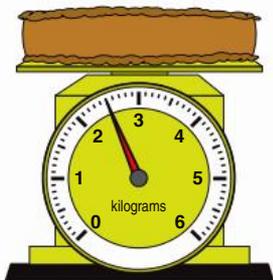**14.** [Time]

Which time is shown on the clock?

A) 6:40
B) 8:25
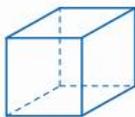C) 7:40

A

15. [Measuring]

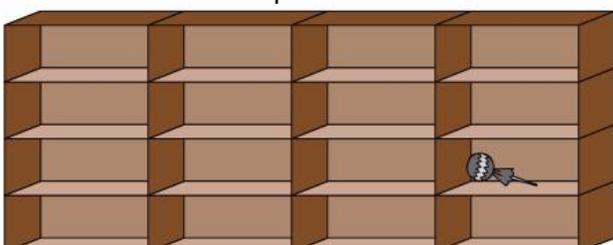What is the weight of the cake in kilograms?

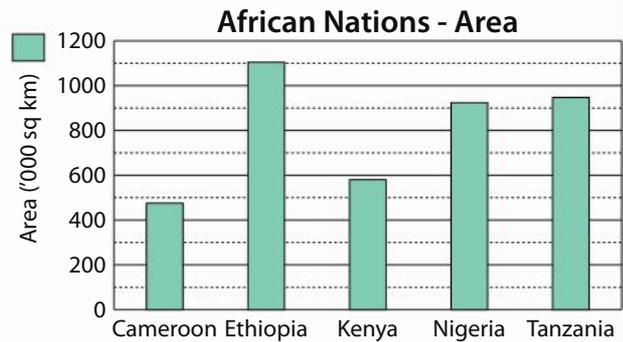**2.5 kg**

16. [Shapes]

How many faces does a square prism have?

6

17. [Location]

Draw a lollipop on the shelf in the 4th column from the left, 3rd row from the top.

18. [Statistics / Probability]

Which African nation has an area closest to 500 000 square kilometres less than Ethiopia?

African Nations - Area

Area ('000 sq km)

1200
1000
800
600
400
200
0

Cameroon Ethiopia Kenya Nigeria Tanzania

Kenya

19. [Problem Solving 1] *

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 34 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

8
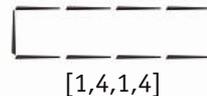
20. [Problem Solving 2]

What is the smallest, odd 4-digit number with digits that add to 18?

1089

21. [Problem Solving 3] *

• Bree is older than Elie
• Bree is younger than Chris
• Abdul is younger than Bree
• Di is younger than Abdul
• Di is older than Elie

Who is the second oldest person?

Bree

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....
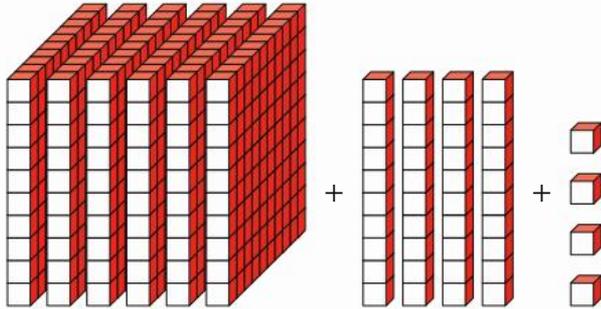
---

1. [Counting]

Redraw the shape with an odd number of sides.

△

2. [Addition / Subtraction]

Complete the addition.

+ +

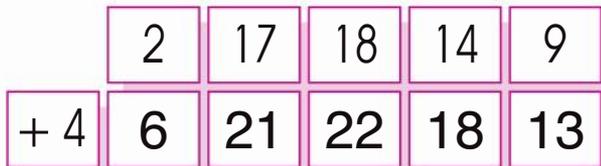600 + 40 + 4 = 644

3. [Multiplication / Division]

Complete the multiplication.
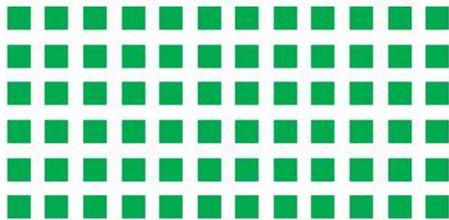
6 $\times 12 =$ 72

4. [+ Whole Numbers]

	2	17	18	14	9
$+4$	6	21	22	18	13

5. [− Whole Numbers]

$$\begin{array}{r} 7\,2\,8 \\ -\ \ 6\,3 \\ \hline 665 \end{array}$$

6. [× Whole Numbers]

$$\begin{array}{r} 8 \\ \times\,8 \\ \hline 64 \end{array}$$

7. [÷ Whole Numbers]

	30	100	40	20	90
$\div 10$	3	10	4	2	9

8. [Word Problems]

It takes Ishmael about 7 minutes to fall asleep every night. How long would Ishmael spend each week falling asleep?
[Write the number sentence.]

$7 \times 7 = 49$ min

9. [Fractions]

Complete the equivalent fractions.

$$\frac{3}{4} = \frac{9}{12}$$

10. [Place Value]

$5106 = 5160$

True or false?

false

11. [Word Numbers]

Write the number 9100 in words.

nine thousand one hundred

12. [Money]

How many 10¢ coins make $1.30?

13

13. [Number Patterns]

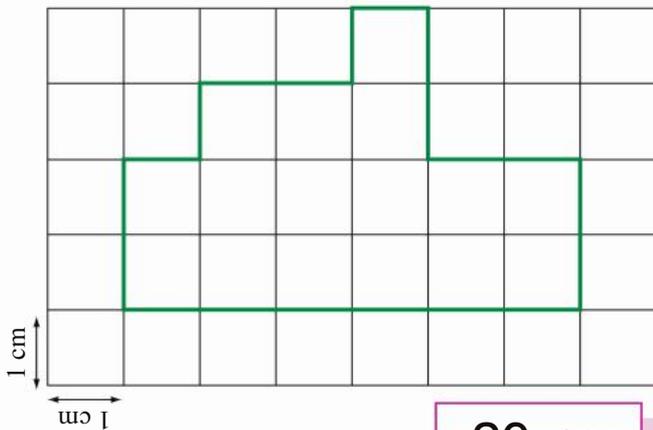4 , 5 , 7 , 8 , 10 ,   **11** , **13**

14. [Time]

Write the time 'seven minutes past ten in the morning' in digital form.

10 : 07 am

15. [Measuring]

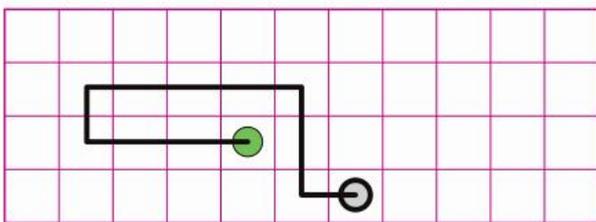What is the perimeter of this polygon?

1 cm

1 cm

20 cm

16. [Shapes]

Draw the line of symmetry.

17. [Location]

Draw the path of the counter by moving it:

3 left, 1 up, 4 right, 2 down, 1 right

18. [Statistics / Probability]

Which location has 10 daylight hours in June?

Daylight hours in June - (average)

England	☀☀☀☀☀☀☀
Thailand	☀☀☀☀☀☀🌤
Australia	☀☀☀☀☀
Equator	☀☀☀☀☀☀

| each ☀ = 2 hours | each 🌤 = 1 hour |

Australia

19. [Problem Solving 1]

Draw the picture that comes next in the pattern.

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

1	2	3	4
3	4	1	2
4	1	2	3
2	3	4	1

21. [Problem Solving 3] *

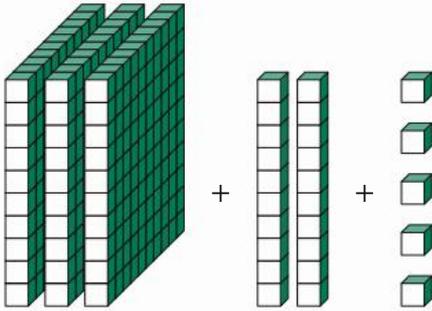Place the numbers 3, 5 and 9 in the circles, so that the sum on each line is the same.

1 — 5 — 9

3

7

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

---
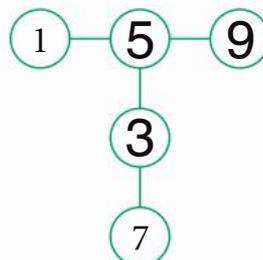
1. [Counting]

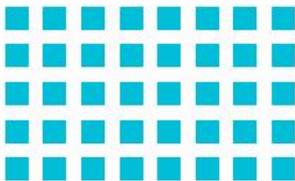Is the sum of 12 and 24 an odd or an even number?

even

2. [Addition / Subtraction]

Complete the addition.

$$300 + 20 + 5 = 325$$

3. [Multiplication / Division]

Complete the multiplication.

$$5 \times 8 = 40$$

4. [+ Whole Numbers]

13	8	17	6	10
+ 5 18	13	22	11	15

5. [− Whole Numbers]

$$\begin{array}{r} 4\ 0\ 6 \\ -\ 2\ 5\ 5 \\ \hline 1\ 5\ 1 \end{array}$$

6. [× Whole Numbers]

$$\begin{array}{r} 6 \\ \times\ 9 \\ \hline 5\ 4 \end{array}$$

7. [÷ Whole Numbers]

	24	72	8	56	80
÷ 8	3	9	1	7	10

8. [Word Problems]

Maia read 145 pages of 'Tom Sawyer' and had 75 pages still to read. How many pages are there altogether in 'Tom Sawyer'? [Write the number sentence.]

$$145 + 75 = 220$$

9. [Fractions]

Complete the equivalent fractions.

$$\frac{4}{5} = \frac{8}{10}$$

10. [Place Value]

$6327 < 6372$

True or false?

true

11. [Word Numbers]

Write the number 3080 in words.

three thousand and eighty
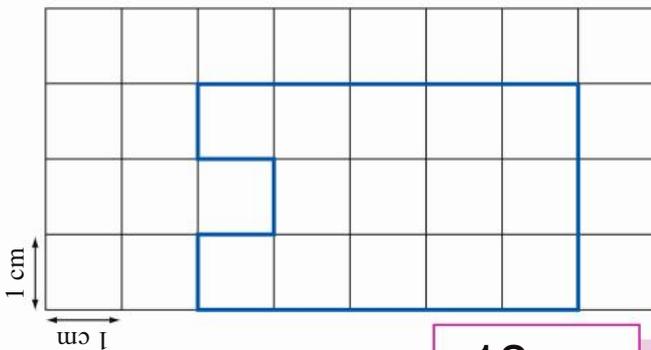
12. [Money]

How many 20¢ coins make $10.00?

50

13. [Number Patterns]

2 , 5 , 6 , 9 , 10 , **13** , **14**

14. [Time]

Write the time 'a quarter to ten in the morning' in digital form.

9 : 45 am

15. [Measuring]

What is the perimeter of this polygon?

1 cm

1 cm

18 cm

16. [Shapes]

Draw the lines of symmetry.

17. [Location]

You walk along Music St to Lake Oaks Park. What is the third street on your left?

New Orleans

UNIVERSITY OF NEW ORLEANS

Lakeshores Dr

Lake Oaks Park

Lake Oaks Pkwy

Oriole St

Lark St

Killdeer St

Jay St

Leon C Simon Dr

Elysian Fields Ave

Mangny St

Music St

Franklin Ave

You are here

Lark St

18. [Statistics / Probability]

How many wheels on the school bus?

Wheels on a Bus

tour bus	mini bus	school bus

Each ❄ = 4 wheels   Each ⚙ = 2 wheels

6

19. [Problem Solving 1]
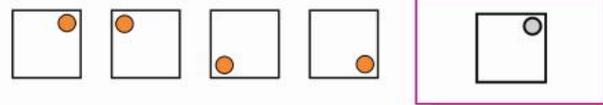
Complete the picture that comes next in the pattern.

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

3	4	2	1
2	1	3	4
4	3	1	2
1	2	4	3

21. [Problem Solving 3] *

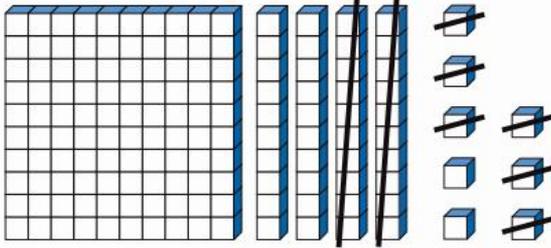Place the numbers 2, 3, 4 and 5 in the circles, so that the sum on each line is the same.

2   5   2   4

3   OR   5

1   4   1   3

R S ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

---
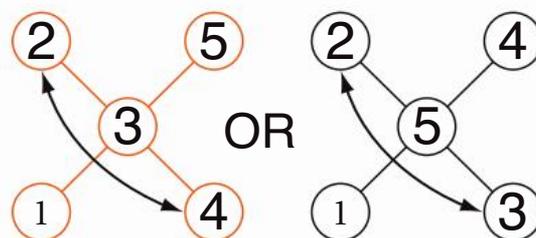
1. [Counting]

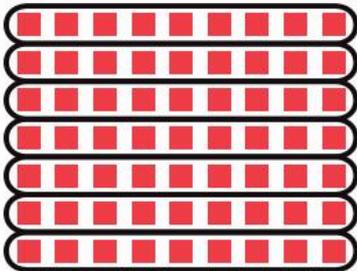Is the sum of 25 and 44 an odd or an even number?

odd

2. [Addition / Subtraction]

Complete the subtraction.

$148 - 26 = 122$

All blocks   Crossed out blocks   Remaining blocks

3. [Multiplication / Division]

Circle to complete the division.

$63 \div 7 = 9$

4. [+ Whole Numbers]

	15	12	8	17	13
+ 9	24	21	17	26	22

5. [– Whole Numbers]

$$\begin{array}{r} 8\ 1\ 3 \\ -\ 5\ 8\ 2 \\ \hline 2\ 3\ 1 \end{array}$$

6. [× Whole Numbers]

$$\begin{array}{r} 5 \\ \times\ 8 \\ \hline 4\ 0 \end{array}$$

7. [÷ Whole Numbers]

	18	45	72	36	90
÷ 9	2	5	8	4	10

8. [Word Problems]

By law, the minimum paid annual leave in New Zealand is 20 days. The minimim paid annual leave in Canada is half that. How many days is the minimum paid annual leave in Canada?
[Write the number sentence.]

$20 \div 2 = 10$ days

9. [Fractions]

Complete the equivalent fractions.

$$\frac{4}{20} = \frac{1}{5}$$

10. [Place Value]

Use <, = or > to make this true.

1900 **>** 998

11. [Word Numbers]

Write the number 1406 in words.

one thousand four hundred and six

1 2 3 4 5 6 7 8 9 10 11

12. [Money]

How many 20¢ coins make $2.40?

$$\boxed{12}$$

13. [Number Patterns]

3 , 5 , 9 , 11 , 15 , $\boxed{\underline{17}\ ,\underline{21}}$

14. [Time]

Write the time 'twenty-six minutes to eight in the morning' in digital form.

$$\boxed{7 : 34 \text{ am}}$$

15. [Measuring]

Find the perimeter of the square.

30 mm

30 mm   30 mm

30 mm

$$\boxed{120 \ \ \text{mm}}$$

16. [Shapes]

Draw the lines of symmetry.

17. [Location]

From Buckingham Palace walk towards Nelson's Column. Which park is on your right?

London

⊖ Railway station

Piccadilly

Regent St

Nelson's Column

Pall Mall

Northumberland Ave

Whitehall

Thames River

Green Park

Buckingham Palace

St James's Park

Houses of Parliament

$$\boxed{\text{St James's Park}}$$

18. [Statistics / Probability]

How many British athletes aged between 30 and 39 years of age won gold at the 2016 Rio Olympics?

2016 Rio Olympics Gold Medalists (Great Britain)

Age group (years)	
0 - 19	
20 - 29	
30 - 39	
40+	

Each = 2 medals   Each = 1 medal

$$\boxed{9}$$

19. [Problem Solving 1]

Complete the picture that comes next in the pattern.

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

3	2	1	4
1	4	3	2
2	1	4	3
4	3	2	1

21. [Problem Solving 3] *

Place the numbers 3, 4, 5, 7, 8 and 9 in the circles, so that the sum on each of the four lines is 13.

1   2

8   7

3   4   5

9   6

MATHS MATE

Term 3 - Sheet 4

Name: ....

Due Date: ..../.........../...........

Parent's Signature: ....

1. [Counting]

Redraw the shape with an even number of sides.
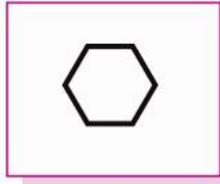
2. [Addition / Subtraction]

Complete the subtraction.
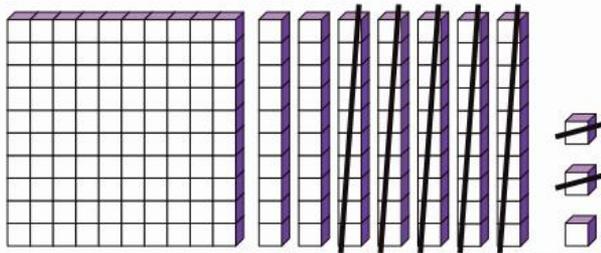
$$\boxed{173} - \boxed{52} = \boxed{121}$$

3. [Multiplication / Division]

Circle to complete the division.
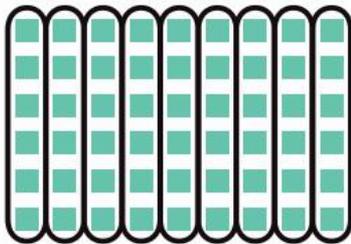
$$54 \div 9 = \boxed{6}$$

4. [+ Whole Numbers]

7	15	8	12	9
+ 6 13	21	14	18	15

5. [− Whole Numbers]

$$\begin{array}{r} 7\,6\,4 \\ -\,3\,5\,7 \\ \hline \boxed{4\,0\,7} \end{array}$$

6. [× Whole Numbers]

$$\begin{array}{r} 8 \\ \times\,4 \\ \hline \boxed{3\,2} \end{array}$$

7. [÷ Whole Numbers]

12	36	54	24	42
÷ 6 2	6	9	4	7

8. [Word Problems]

As of 2019 there are just 3900 tigers and 1800 pandas in the world. How many more tigers are left than pandas?
[Write the number sentence.]

$$3900 - 1800 = 2100$$

9. [Fractions]

Complete the equivalent fractions.

$$\frac{10}{15} = \frac{\boxed{2}}{3}$$

10. [Place Value]

Use <, = or > to make this true.

$$21\,540 \;\boxed{<}\; 21\,850$$

11. [Word Numbers]

Write the number 4058 in words.

four thousand and fifty-eight

1 2 3 4 5 6 7 8 9 10 11

12. [Money]

How many 50¢ coins make $4.50?

9

13. [Number Patterns]

2 , 5 , 10 , 13 , 18 , 21 , 26

14. [Time]

2:45 am means a quarter to two.
True or false?

false

15. [Measuring]

Find the perimeter of the parallelogram.

7 m
4 m   4 m
7 m
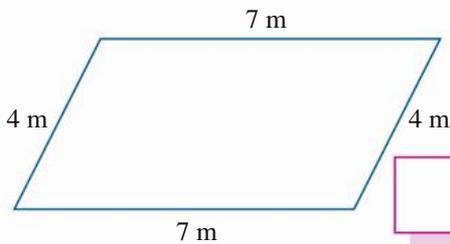
22 m

16. [Shapes]

Draw the lines of symmetry.
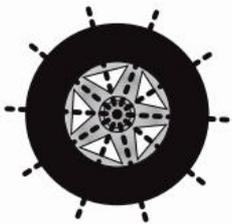
17. [Location]

What is the least number of roundabouts you must drive through to get to the Tamaki Maori Village?

ROTORUA - New Zealand

Ranolf St
Amohia St
Tutanekai St
Fenton St
Hinemaru St
Haupapa St
Pukuatua St
Hinemoa St
Tamaki Maori Village
You are here

1
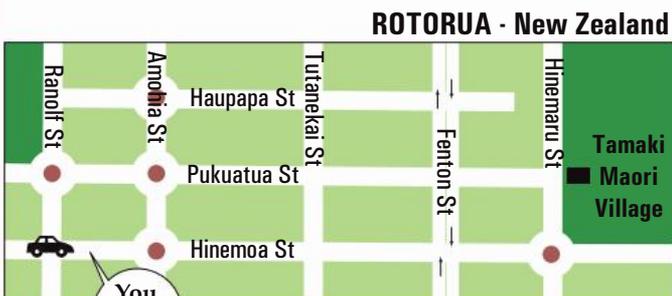
18. [Statistics / Probability]

How many pieces does a person have in the game of checkers?

GAMES: pieces for each person ☺

Draughts	● ● ●
Checkers	● ● ◖
Chess	● ● ● ●

| Each ● = 4 pieces | Each ◖ = 2 pieces |

10

19. [Problem Solving 1]

Draw the picture that comes next in the pattern.

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

2	3	4	1
4	1	3	2
1	4	2	3
3	2	1	4

21. [Problem Solving 3] ✳

Place the numbers 1, 2, 3, 4 and 5 in the circles, so that the sum on each line is the same.
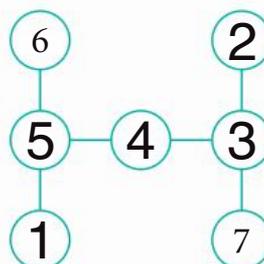
6   2

5 — 4 — 3

1   7

MATHS MATE
Term 3 - Sheet 5

R S O ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Complete the number line.

12 15 **18 21 24 27** 30 33

2. [Addition / Subtraction]

Complete the subtraction.

Trade 1 long for 10 minis
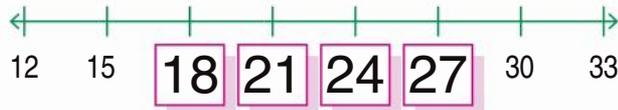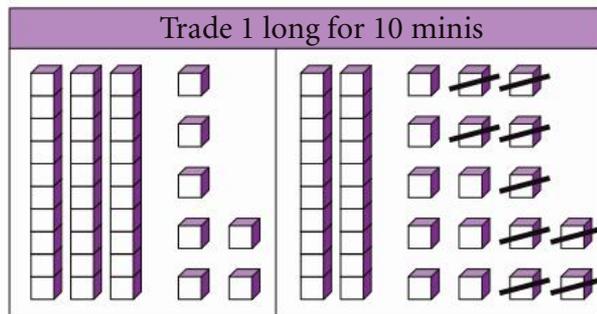
$37 - 9 =$ **28**

3. [Multiplication / Division]
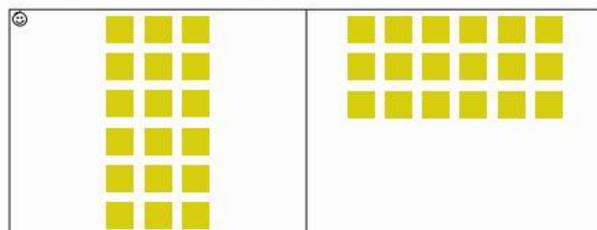
$6 \times$ **3** $=$ **3** $\times 6$

4. [+ Whole Numbers]

$16 +$ **3** $= 19$

5. [− Whole Numbers]

8	10	15	24	13
− 6 **2**	**4**	**9**	**18**	**7**
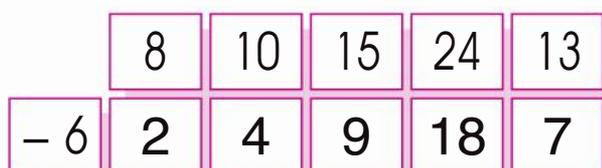
6. [× Whole Numbers]

$$\begin{array}{r} 3\,6 \\ \times \quad 5 \\ \hline 3\,0 \leftarrow 5 \times 6 \text{ units} \\ +\,1\,5\,0 \leftarrow 5 \times 3 \text{ tens} \\ \hline \mathbf{1\,8\,0} \end{array}$$

7. [÷ Whole Numbers]

9

$6 \overline{)5\,4}$

8. [Word Problems]

Adults have 206 bones in their bodies. Children have 94 more bones than adults. How many bones are there in a child's body? [Write the number sentence.]

$$206 + 94 = 300$$

9. [Fractions]

Show the fractions $\frac{5}{6}$ and $\frac{2}{6}$ on the number line. Which fraction is greater?

0 ————●————————●———— 1

$\dfrac{5}{6}$
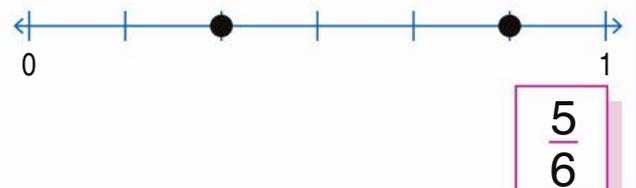
10. [Place Value]

Write the smallest 3-digit number that contains the digits 8, 1 and 5.

158

11. [Word Numbers]

Write in numerals:

eighty-four thousand $\boxed{84\,000}$

12. [Money]

How much change would you receive from $50 if you purchased this cart?

$44.90

$\boxed{\$\,5.10}$

13. [Number Patterns]

13 , 12 , 9 , 8 , 5 , $\boxed{\underline{4}\ ,\ \underline{1}}$

14. [Time]

Write the time shown in words.

$\boxed{\text{a quarter to five}}$

OR four forty-five

15. [Measuring]

Find the area of the shaded square.

Area = 1 cm²
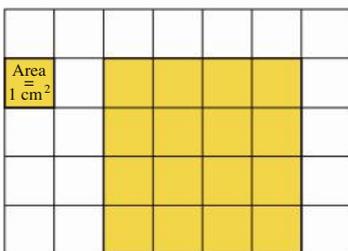
$\boxed{16\ \text{cm}^2}$

16. [Shapes]

Which of the angles shown on the clock faces is larger?

A)   B)

$\boxed{B}$

17. [Location]

Has this pear been moved by a flip, a slide or a turn?
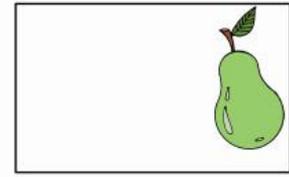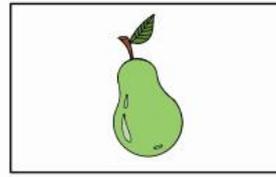
$\boxed{\text{slide}}$

18. [Statistics / Probability]

Use the table to complete the graph.

Calories in food

Food type	Number of calories
strawberry	4
grape	3
almond	7
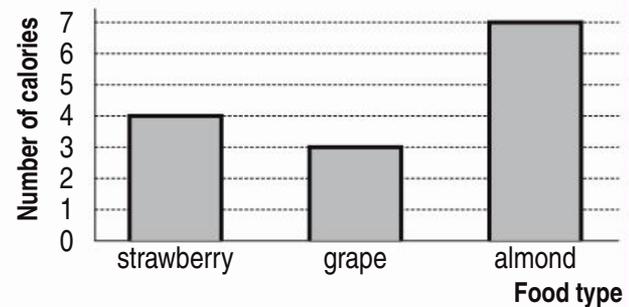
19. [Problem Solving 1]

Complete the addition table.

+	1	4	2
3	4	7	5
2	3	6	4
5	6	9	7

20. [Problem Solving 2]

Which multiple of 4 is missing from this list of multiples?

4, 8, 12, $\boxed{16}$, 20, 24

21. [Problem Solving 3] *

The lunch break at school is 60 minutes long. Lulu spends one third of the lunch break eating. How many minutes does she spend eating?

$\boxed{20\ \text{min}}$

MATHS MATE
Term 3 - Sheet 6

R O S E ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Complete the number line.

18 **24** **30** 36 42 **48** **54** 60

2. [Addition / Subtraction]

Complete the subtraction.

Trade 1 long for 10 minis

$34 - 19 =$ **15**

3. [Multiplication / Division]

9 $\times 5 = 5 \times$ **9**

4. [+ Whole Numbers]

18 $+ 7 = 25$

5. [– Whole Numbers]

18	14	9	23	15
– 8	10	6	1	15	7
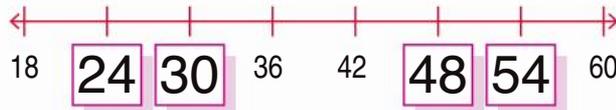
6. [× Whole Numbers]

$$
\begin{array}{r}
5\ 3 \\
\times\quad 8 \\
\hline
2\ 4 \leftarrow 8 \times 3 \text{ units} \\
+\ 4\ 0\ 0 \leftarrow 8 \times 5 \text{ tens} \\
\hline
\mathbf{4\ 2\ 4}
\end{array}
$$
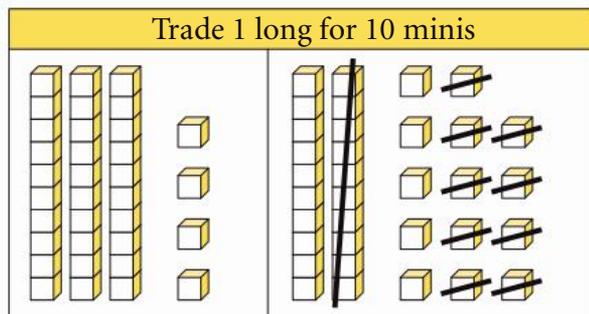
7. [÷ Whole Numbers]

$$
8\overline{)5\ 6}
$$
7
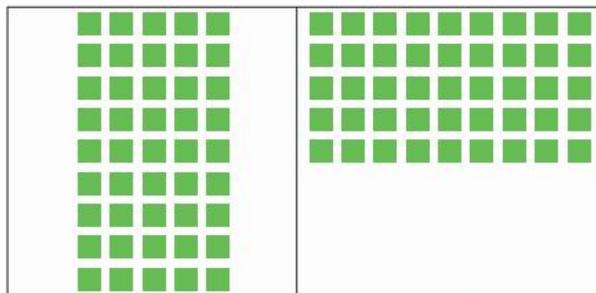
8. [Word Problems]

A square of side length 3 cm has an area of 9 cm^2. If the side length is doubled, the area of the new square is 36 cm^2. How many times bigger is the area of the new square?
[Write the number sentence.]

$$36 \div 9 = 4$$

9. [Fractions]

Use <, = or > to make this true.

0 $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ 1

0 $\frac{1}{9}$ $\frac{2}{9}$ $\frac{3}{9}$ $\frac{4}{9}$ $\frac{5}{9}$ $\frac{6}{9}$ $\frac{7}{9}$ $\frac{8}{9}$ 1

$\frac{4}{5}$ **>** $\frac{4}{9}$

10. [Place Value]

Write the largest 4-digit number that contains the digits 5, 1, 8 and 6.

8651

11. [Word Numbers]

Write in numerals:

sixty-three thousand, one hundred

63 100

12. [Money]

How much change would you receive from $200 if you purchased this racquet?

$135.60
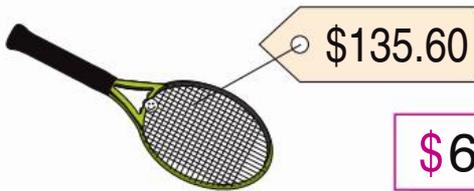
$64.40

13. [Number Patterns]

20 , 18 , 15 , 13 , 10 , __8__ , __5__

14. [Time]

Write the time 8:29 in words.

eight twenty-nine

OR twenty-nine past eight

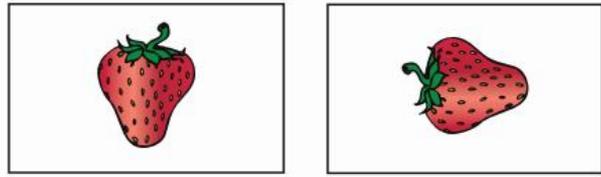**15.** [Measuring]

Find the area of the shaded rectangle.

7 cm

3 cm
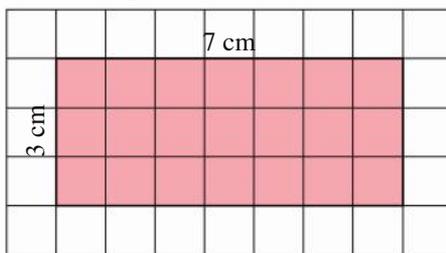
21 cm²

16. [Shapes]

On which crane is the angle formed by the arm and hook smaller?

A)   B)

B
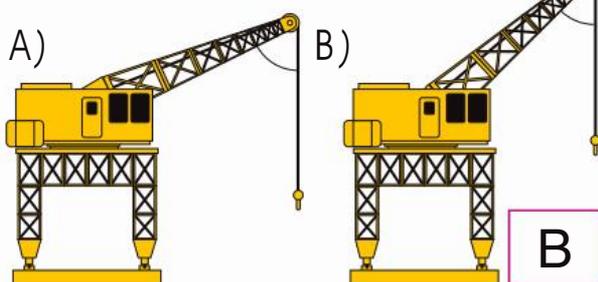
17. [Location]

Has this strawberry been moved by a flip, a slide or a turn?

turn

18. [Statistics / Probability]

Use the graph to complete the table.
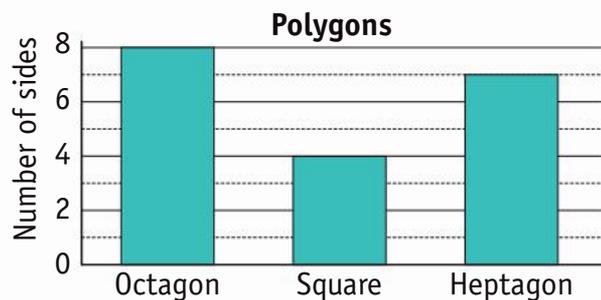
Polygons

Polygons	Number of sides
Octagon	8
Square	4
Heptagon	7

19. [Problem Solving 1]

Complete the addition table.

+	2	1	5
1	3	2	6
3	5	4	8
4	6	5	9

20. [Problem Solving 2]

Which multiple of 6 is missing from this list of multiples?

6, 12, 18, 24, 30, 36 , 42

21. [Problem Solving 3] *

There are 20 biscuits in a packet. Rachel puts three tenths of them on a plate. How many biscuits are on the plate?

6

MATHS MATE
Term 3 - Sheet 7

RoSE

1. [Counting]

Complete the number line.

14 **21 28 35** 42 49 **56** 63
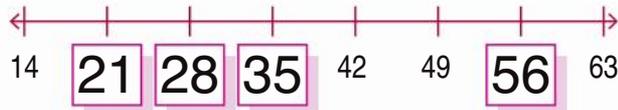
2. [Addition / Subtraction]

Complete the number sentence.
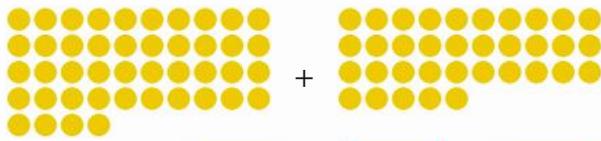
44 + **35** = **79**

3. [Multiplication / Division]
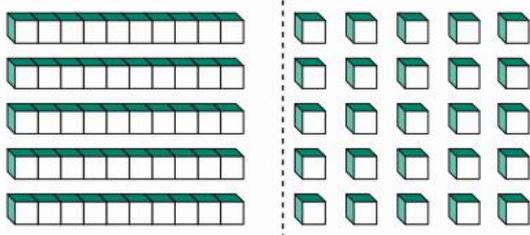
$5 \times 10 =$ **50** $5 \times 5 =$ **25**

$5 \times 15 =$ **75**

4. [+ Whole Numbers]

$8 +$ **28** $= 36$

5. [− Whole Numbers]

	12	17	19	23	15
− 7	5	10	12	16	8

6. [× Whole Numbers]

$$\begin{array}{r} 2\,7 \\ \times \quad 6 \\ \hline \end{array}$$

42 ← 6×7 units

+ **120** ← 6×2 tens

162

7. [÷ Whole Numbers]

8

$6\,\overline{)\,4\,8}$

8. [Word Problems]

In a classic Rubik's Cube, each of the faces is covered by nine coloured stickers. How many coloured stickers are on the Rubik's Cube?
[Write the number sentence.]

$9 \times 6 = 54$

9. [Fractions]

Show the fractions $\frac{3}{8}$ and $\frac{7}{8}$ on the number line. Which fraction is greater?

$\dfrac{7}{8}$

0 ●————————● 1
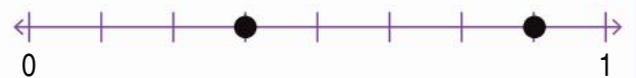
10. [Place Value]

Using the digits 1, 6, 7 and 9 write a number between 6950 and 7000.

6971

11. [Word Numbers]

Write in numerals:

nineteen thousand, eight hundred and sixty

$$19\,860$$

12. [Money]

How much change would you receive from $20 if you purchased this spinning top?

$14.40

$ 5.60

13. [Number Patterns]

16 , 12 , 11 , 7 , 6 , $\underline{2}$, $\underline{1}$

14. [Time]

Write the time 6:42 in words.

six forty-two

OR eighteen to seven

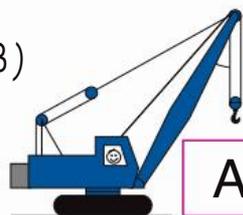**15.** [Measuring]

Find the area of the shaded shape.

6 cm

2 cm

3 cm

4 cm
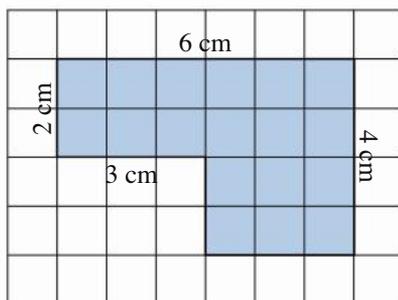
18 cm²

16. [Shapes]

On which crane is the angle formed by the arm and hook larger?

A)   B)

A

17. [Location]

Draw the reflection of this shape flipped across the dotted line.
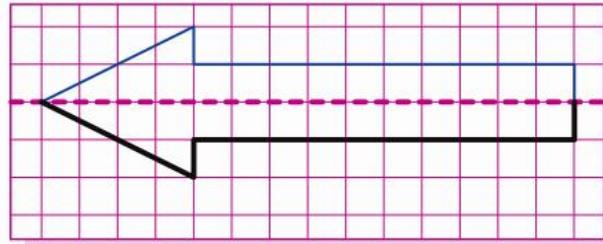
18. [Statistics / Probability]

Use the table to complete the graph.

How many colours?

	Number of colours
Traffic Light	3
Rainbow	7
National	2
Primary	3

Traffic Light

Rainbow

National

Primary

0 1 2 3 4 5 6 7
Number of colours
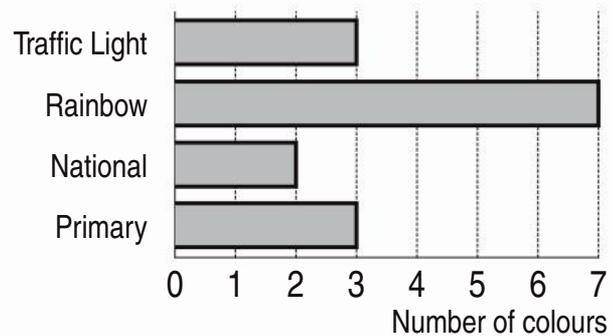
19. [Problem Solving 1]

Complete the addition table.

+	2	4	6
1	3	5	7
2	4	6	8
3	5	7	9

20. [Problem Solving 2]

Which factor of 18 is missing from this list of factors?

1, 2, 3, **6** , 9, 18

21. [Problem Solving 3] *

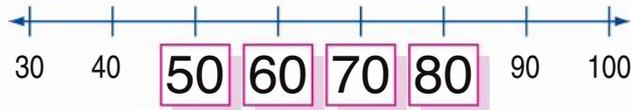Gina buys 25 sweets. She eats two fifths of them. How many does she have left?

15

MATHS MATE
Term 3 - Sheet 8

R O S E

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Complete the number line.

30   40   **50** **60** **70** **80**   90   100

2. [Addition / Subtraction]

Complete the number sentence.

+
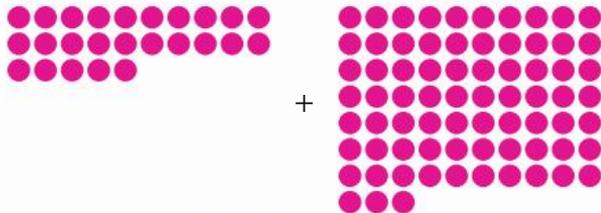
25 + **73** = **98**

3. [Multiplication / Division]
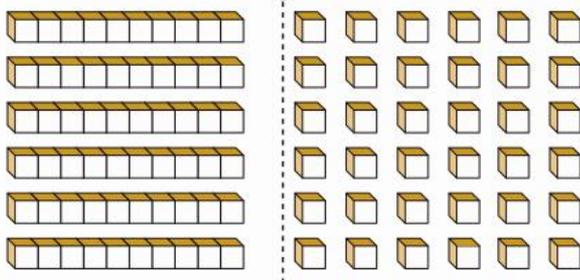
$6 \times 10 =$ **60** $6 \times 6 =$ **36**

$6 \times 16 =$ **96**

4. [+ Whole Numbers]

16 $+ 19 = 35$

5. [− Whole Numbers]

	18	23	14	17	12
− 9	9	14	5	8	3

6. [× Whole Numbers]

$$\begin{array}{r} 7\,5 \\ \times \quad 9 \\ \hline \end{array}$$

45 ←9×5 units

$+$ **630** ←9×7 tens

675

7. [÷ Whole Numbers]

9

$7\,\overline{)\,6\,3}$

8. [Word Problems]

King George VI of England reigned between 1936 and 1952. For how many years did he reign? [Write the number sentence.]

$1952 - 1936 = 16$ years

9. [Fractions]

Use $<, =$ or $>$ to make this true.

0   $\frac{1}{7}$ $\frac{2}{7}$ $\frac{3}{7}$ $\frac{4}{7}$ $\frac{5}{7}$ $\frac{6}{7}$ 1

0   $\frac{1}{6}$ $\frac{2}{6}$ $\frac{3}{6}$ $\frac{4}{6}$ $\frac{5}{6}$ 1

$\frac{5}{7}$ **<** $\frac{5}{6}$
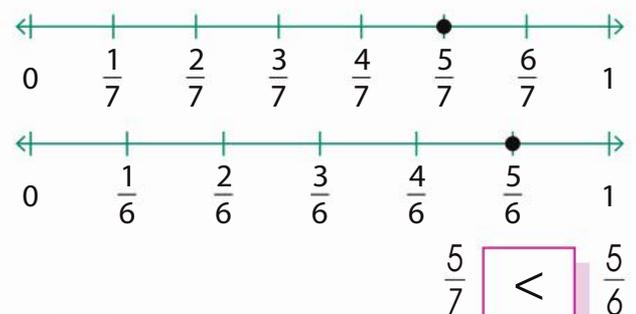
10. [Place Value]

Write the largest 4-digit number less than 9000, that contains the digits 9, 2, 4 and 8.
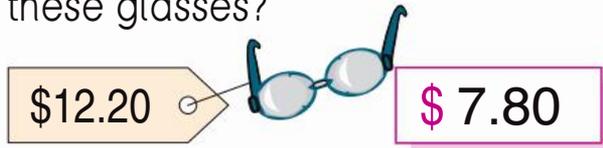
8942

11. [Word Numbers]

Write in numerals:

twenty thousand and seventy-four

20 074

12. [Money]

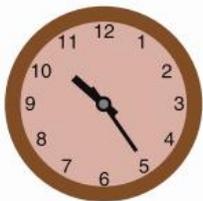How much change would you receive from $15 if you purchased these glasses?

$12.20

$ 7.80

13. [Number Patterns]

24 , 20 , 18 , 14 , 12 , **8** , **6**
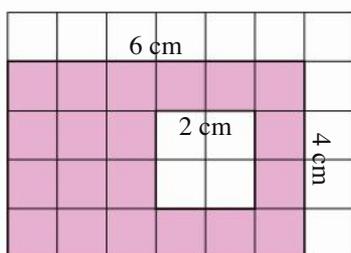
14. [Time]

Write the time shown in words.
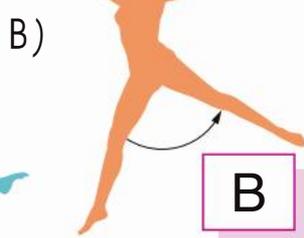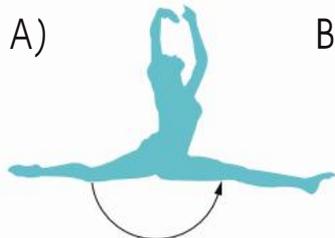
OR ten twenty-five

twenty-five past ten

15. [Measuring]

Find the area of the shaded shape.

6 cm

2 cm

4 cm

20 cm²

16. [Shapes]

On which ballet dancer is the angle formed by their legs smaller?

A)

B)

B

17. [Location]
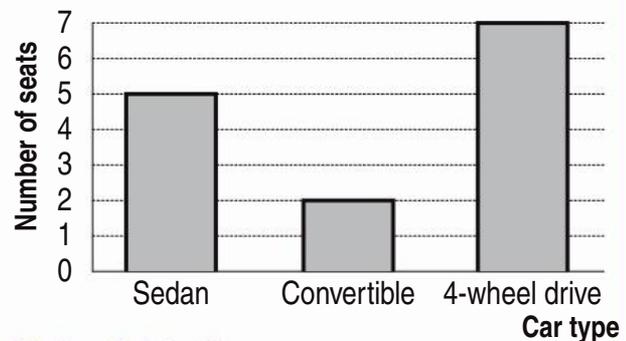
Redraw this diagram after sliding it 5 units to the right.
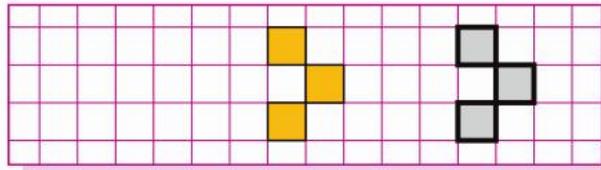
18. [Statistics / Probability]

Use the table to complete the graph.

Number of car seats

Car type	Number of seats
Sedan	5
Convertible	2
4-wheel drive	7

19. [Problem Solving 1]

Complete the addition table.

+	1	2	3
5	6	**7**	8
4	**5**	6	**7**
3	4	5	**6**

20. [Problem Solving 2]

Which factor of 20 is missing from this list of factors?

1, 2, 4, 5, **10** , 20

21. [Problem Solving 3] *

A train ticket for one adult is $40. A train ticket for one child is three-quarters of the cost of an adult ticket. What is the cost of tickets for two children?
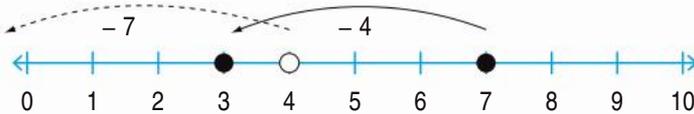
$ 60

Name: ....

Due Date: ..../.........../...........

Parent's Signature: ....

1. [Counting]

Start at 87. Count forward 6.

$$93$$

2. [Addition / Subtraction]

$$7 - 4 = 4 - 7$$
True or false?

false

3. [Multiplication / Division]
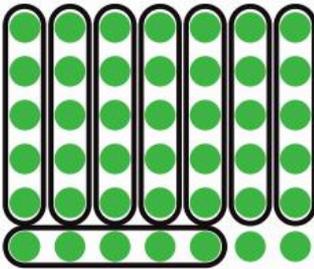
$$42 \div 5 = \boxed{8} \text{ remainder } \boxed{2}$$

4. [+ Whole Numbers]

$$\begin{array}{r} 1\ 3 \\ 5\ 4\ 2 \\ +\quad 8\ 4 \\ \hline 6\ 3\ 9 \end{array}$$

5. [– Whole Numbers]

$$9 - \boxed{4} = 5$$

6. [× Whole Numbers]

$$\begin{array}{r} 2\ 3 \\ \times\quad 3 \\ \hline 6\ 9 \end{array}$$
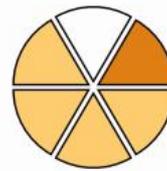
7. [÷ Whole Numbers]

$$21 \div \boxed{7} = 3$$

8. [Word Problems]

On average the American alligator can live for 56 years. The crocodile can live for 45 years. What is the difference between their life spans? [Write the number sentence.]

$$56 - 45 = 11 \text{ years}$$

9. [Fractions]

Complete the subtraction.

$$\frac{5}{6} - \frac{1}{6} = \boxed{\frac{4}{6}}$$

10. [Place Value]

Place in order from smallest to largest:

374, 734, 743, 337, 474

$$337, 374, 474, 734, 743$$

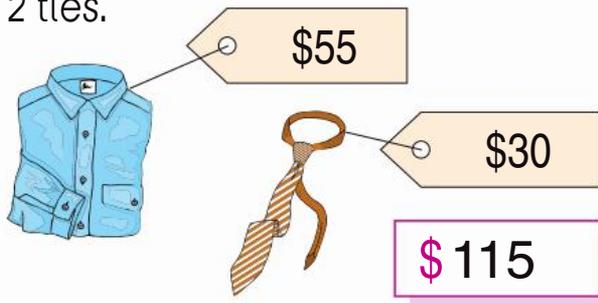**11.** [Word Numbers]

Write the number 47 000 in words.

forty-seven thousand

12. [Money] *

Calculate the cost of 1 shirt and 2 ties.

$55

$30

$ 115

13. [Number Patterns]

1 , 2 , 4 , 8 , 16 , 32

14. [Time]

For how long are the Reading Rooms at the National Library open on a Tuesday?

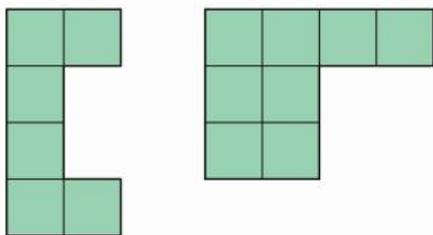NATIONAL LIBRARY
OF NEW ZEALAND
TE PUNA MATAURANGA
O AOTEAROA

Te Ahumairangi	Opening times
Monday - Saturday	8:30 am - 5 pm
Reading Rooms	
Monday - Saturday	10 am - 5 pm

7 hours

15. [Measuring]

The shapes below have the same:

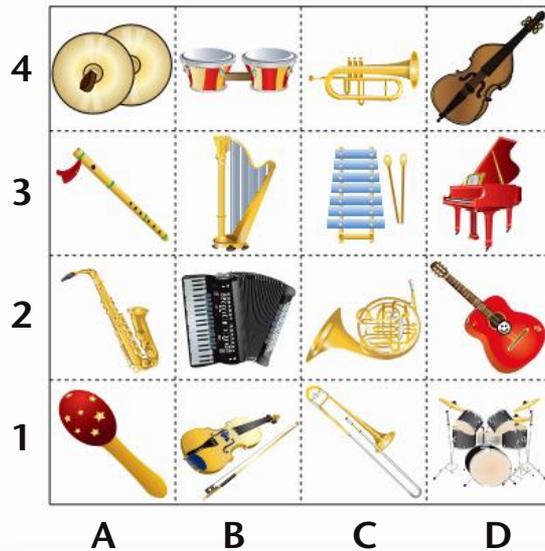A) perimeter
B) area
C) perimeter and area

A

16. [Shapes]

What type of angle is marked on this letter?

right

17. [Location]

What is located at position D3?

4				
3				
2				
1				
	A	B	C	D

piano

18. [Statistics / Probability]

A playlist is on shuffle mode. It has 20 songs, 7 of which Elle likes. To how many songs does Elle need to listen, to be certain she hears a song she likes?

14

19. [Problem Solving 1] *

If you subtract 5 from a number and multiply the result by 4, you get 20. What is the number?

10

20. [Problem Solving 2] *

Maeve leaves home at 11:15 am to catch the 11:30 am bus. Her bus ride takes 10 minutes. How long is the whole journey?

25 min

21. [Problem Solving 3] *

Ada has 12 fish in 2 fish bowls. She has twice as many fish in the big bowl as she has in the little bowl. How many fish are in the little bowl?
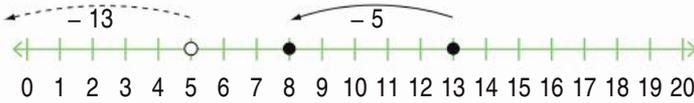
4

MATHS MATE
Term 4 - Sheet 2

RoSe ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Start at 63. Count forward 9.

72

2. [Addition / Subtraction]
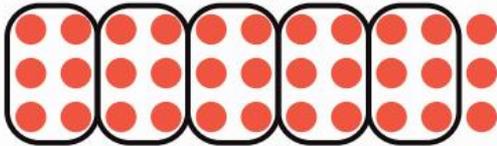
-13 -5

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

$13 - 5 = 5 - 13$

True or false?

false

3. [Multiplication / Division]

$33 \div 6 =$ 5 remainder 3

4. [+ Whole Numbers]

$$\begin{array}{r} 2\,5\,6\,2 \\ +\,4\,7\,0\,9 \\ \hline 7\,2\,7\,1 \end{array}$$

5. [− Whole Numbers]

$15 -$ 9 $= 6$

6. [× Whole Numbers]

$$\begin{array}{r} 2\,4\,3 \\ \times\quad 2 \\ \hline 4\,8\,6 \end{array}$$

7. [÷ Whole Numbers]

64 $\div 8 = 8$

8. [Word Problems]

In the 2016 Rio Olympics China won 26 gold, 18 silver and 26 bronze medals. How many medals did China win altogether? [Write the number sentence.]

$26 + 18 + 26 = 70$

9. [Fractions]

Shade to complete the sum.

$\frac{3}{7} + \frac{4}{7} = \frac{7}{7}$

10. [Place Value]

Place in order from largest to smallest:

4669, 496, 6964, 6449

6964, 6449, 4669, 496

11. [Word Numbers]

Write the number 60 100 in words.

sixty thousand, one hundred

12. [Money] ∗

What is the total value of:

3 fifty-cent coins,
1 twenty-cent coin and
2 ten-cent coins?

$1.90

13. [Number Patterns]

6 , 60 , 600 , 6000 , 60 000

14. [Time]

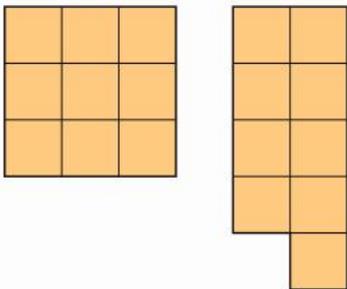If you were shopping at Paddy's Market in Sydney at 8:00 am, what day would it be?

Day	Opening times
Friday	10 am - 4:30 pm
Saturday	6 am - 2 pm
Sunday	9 am - 4:30 pm

Saturday

15. [Measuring]

The shapes below have the same:

A) perimeter
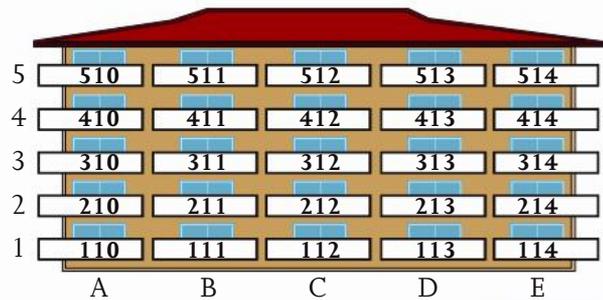B) area
C) perimeter and area

B

16. [Shapes]

What type of angle is marked on this letter?
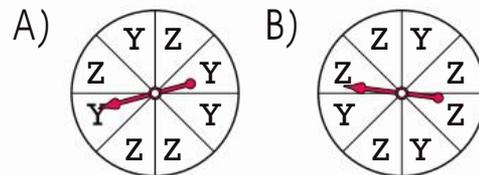
N

acute

17. [Location]

What is the number of the apartment located at position C3?

5	510	511	512	513	514
4	410	411	412	413	414
3	310	311	312	313	314
2	210	211	212	213	214
1	110	111	112	113	114
	A	B	C	D	E

312

18. [Statistics / Probability]

Each wheel is spun once. On which wheel do the letters 'Y' and 'Z' have equal chance to be spun?

A) B)

A

19. [Problem Solving 1] ∗

If you add 12 to a number and divide the result by 6, you get 4. What is the number?

12

20. [Problem Solving 2] ∗

Davin found a biscuit recipe that needed 20 minutes cooking time. He started preparing at 11:15 am. The preparation took 45 minutes. What time were the biscuits finished?

12:20 pm

21. [Problem Solving 3] ∗

Michael and Alana have 20 stamps in total. Michael has 3 times as many stamps as Alana. How many stamps does Alana have?

5

MATHS MATE
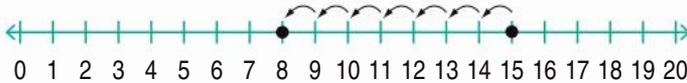## Term 4 - Sheet 3

R O S ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Start at 132. Count backward 5.

127

2. [Addition / Subtraction]

$$0\ 1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9\ 10\ 11\ 12\ 13\ 14\ 15\ 16\ 17\ 18\ 19\ 20$$

$$7 + 8 = 15$$

$$15 - 7 = \boxed{8}$$

3. [Multiplication / Division]
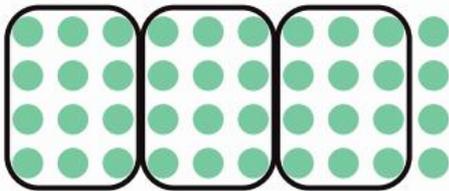
$$40 \div 12 = \boxed{3} \text{ remainder } \boxed{4}$$

4. [+ Whole Numbers]

$$
\begin{array}{r}
6\ 0\ 2 \\
4\ 8 \\
+\ 1\ 5\ 2 \\
\hline
8\ 0\ 2
\end{array}
$$

5. [− Whole Numbers]

$$\boxed{20} - 13 = 7$$

6. [× Whole Numbers]

$$
\begin{array}{r}
1\ 1\ 6 \\
\times\ \ \ \ \ 5 \\
\hline
5\ 8\ 0
\end{array}
$$

7. [÷ Whole Numbers]

$$27 \div \boxed{9} = 3$$

8. [Word Problems]

A quad sculling boat holds 4 people using a total of 8 oars. In a race with 6 boats, how many oars are being used?
[Write the number sentence.]

$$6 \times 8 = 48$$

9. [Fractions]

Complete the subtraction.

$$\frac{7}{8} - \frac{5}{8} = \boxed{\frac{2}{8}}$$

10. [Place Value]

Place in order from largest to smallest:

5126, 2615, 6521, 5612

6521, 5612, 5126, 2615

11. [Word Numbers]

Write the number 12 900 in words.

twelve thousand, nine hundred

12. [Money] *

What is the total value of:

2 two-dollar coins,
2 twenty-cent coins and
2 ten-cent coins?

$ 4.60

13. [Number Patterns]

5 , 10 , 20 , 40 , **80**

14. [Time]

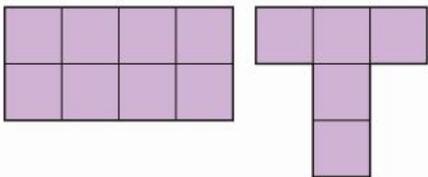How long should it take to travel between Perth and Fremantle stations?

Transperth

Fremantle Line		
Perth☺	11:30 am	11:45 am
Subiaco	11:36 am	11:51 am
Cottesloe	11:49 am	12:04 pm
Fremantle	11:58 am	12:13 pm

28 minutes

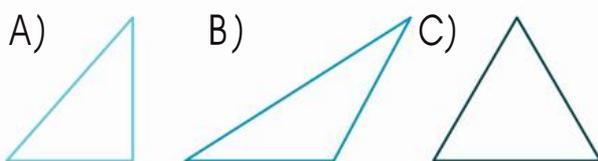**15.** [Measuring]

The shapes below have the same:
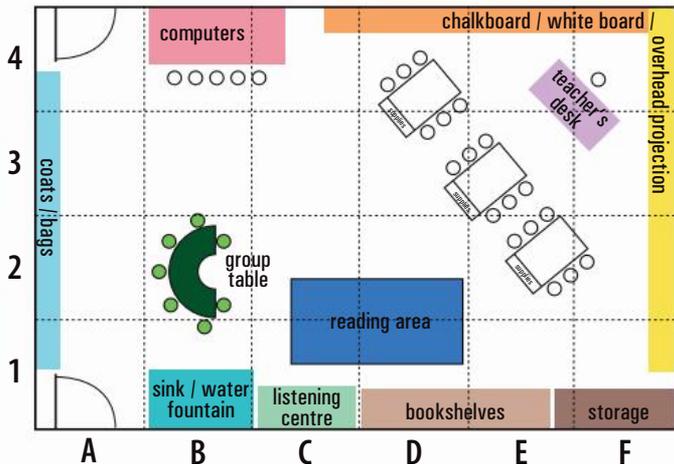
A) perimeter
B) area
C) perimeter and area

A

16. [Shapes]

Which triangle is a right-angled triangle?

A) B) C)

A

17. [Location]

What is located at position B2?

group table

18. [Statistics / Probability]

List the five possible outcomes when you spin this spinner.

2, 4, 8, 16, 32

19. [Problem Solving 1] *

If you add 15 to a number and divide the result by 3, you get 10. What is the number?

15

20. [Problem Solving 2] *

Ballet starts at 10:30 am. Nina has to be there 20 minutes early to warm up and it takes 25 minutes to drive there. What time should Nina leave home?

9 : 45 am

21. [Problem Solving 3] *

Dex bought bananas and apples, a total of 12 pieces. There are 4 more apples than bananas. How many bananas did Dex buy?

4

MATHS MATE
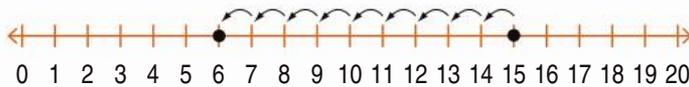## Term 4 - Sheet 4

R **O**
S
ROSE

Name: ....

Due Date: ..../ ..../ ....

Parent's Signature: ....

1. [Counting]

Start at 153. Count backward 7.

146

2. [Addition / Subtraction]

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

$6 + 9 = 15$

$15 - 9 =$ 6

3. [Multiplication / Division]
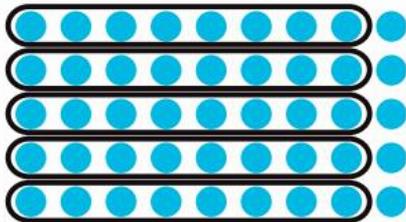
$45 \div 8 =$ 5 remainder 5

4. [+ Whole Numbers]

$$\begin{array}{r} 4\,6\,3\,5 \\ 1\,1\,0\,8 \\ +\,2\,0\,7\,1 \\ \hline 7\,8\,1\,4 \end{array}$$

5. [− Whole Numbers]

17 $- 8 = 9$

6. [× Whole Numbers]

$$\begin{array}{r} 2\,3\,1 \\ \times \quad 4 \\ \hline 9\,2\,4 \end{array}$$

7. [÷ Whole Numbers]

45 $\div 5 = 9$

8. [Word Problems]

There are 40 gymnasts competing in the Olympic women's teams final. If there are 8 teams in the final, how many gymnasts does each team have?
[Write the number sentence.]

$40 \div 8 = 5$

9. [Fractions]

Shade to complete the sum.

$\dfrac{3}{10} + \dfrac{6}{10} = \dfrac{9}{10}$

10. [Place Value]

Place in order from smallest to largest:

9084, 4089, 8490, 8094

4089, 8094, 8490, 9084

11. [Word Numbers]

Write the number 20 080 in words.

twenty thousand and eighty

12. [Money] *

What is the total value of:

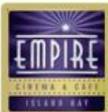1 two-dollar coin,
3 fifty-cent coins and
3 twenty-cent coins?

$ 4.10

13. [Number Patterns]

2 , 10 , 50 , 250 , **1250**

14. [Time]

Which movie runs the longest?

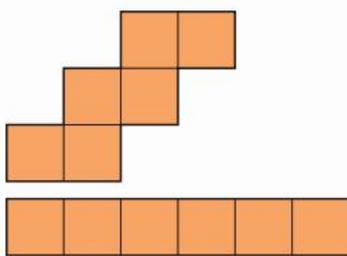EMPIRE
CINEMA & CAFE
ISLAND BAY

Wellington Cinema
3:50 - 5:50 pm   The Lion King
1:00 - 3:10 pm   Spider Man: Far From Home

Spider Man: Far From Home

15. [Measuring]

The shapes below have the same:

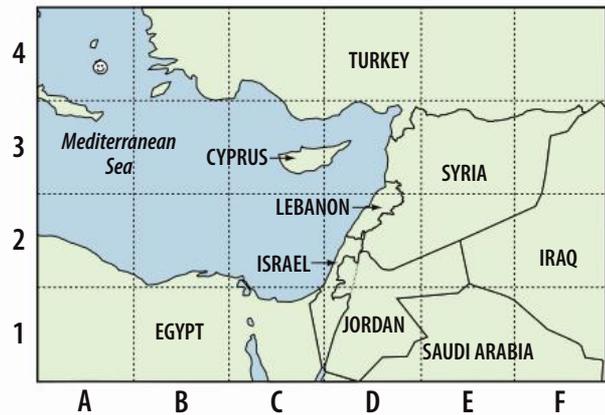A)   perimeter
B)   area
C)   perimeter and area

C

**16.** [Shapes]

Which triangle is an obtuse-angled triangle?

A)   B)   C)

C

17. [Location]

Which country is located at position B1?

4
3   Mediterranean Sea   CYPRUS   TURKEY   SYRIA
    LEBANON
2   ISRAEL   IRAQ
1   EGYPT   JORDAN
    SAUDI ARABIA
    A   B   C   D   E   F

Egypt

18. [Statistics / Probability]

Two jars contain chocolates. A chocolate is chosen from each jar without looking. From which jar does a white chocolate have a greater chance of being chosen?

A)   B)

A
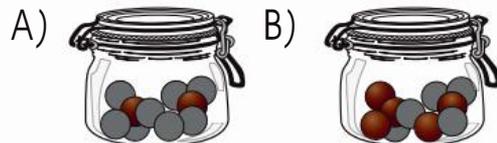
19. [Problem Solving 1] *

If you subtract 6 from a number and multiply the result by 5, you get 10. What is the number?

8

20. [Problem Solving 2] *

It is now midnight. Will it be daytime in 72 hours?

no

21. [Problem Solving 3] *

Jack and Jill have $18 in total. Jill has $10 less than Jack. How much money does Jill have?

$ 4

MATHS MATE
Term 4 - Sheet 5

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count on by 4s.

| 208 | 212 | 216 | 220 | 224 |

2. [Addition / Subtraction]

Complete the addition.

 +
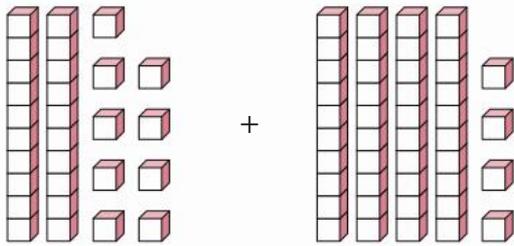
$29 + 44 = \boxed{73}$

3. [Multiplication / Division]
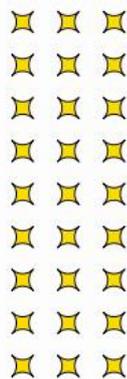
$9 \times \boxed{3} = 27$

$\boxed{3} \times 9 = 27$

$27 \div 3 = \boxed{9}$

$27 \div \boxed{9} = 3$

4. [+ Whole Numbers]

$$\begin{array}{r} 4\,3\,2\,8 \\ +\ \ 9\,0\,6 \\ \hline \boxed{5\,2\,3\,4} \end{array}$$

5. [– Whole Numbers]

$$\begin{array}{r} 2\,0\,0 \\ -\ \ \ 7\,5 \\ \hline \boxed{1\,2\,5} \end{array}$$

6. [× Whole Numbers]

$2 \times 5 \times 7 = \boxed{70}$

7. [÷ Whole Numbers]

$$3\,\overline{)9\,6}\quad \boxed{32}$$

8. [Word Problems]

Sextuplets are six children born at one birth. Six sets of sextuplets were born in the United States in 2004. How many babies is this altogether?

[Write the number sentence.]

$$\boxed{6 \times 6 = 36}$$

9. [Fractions]

$\dfrac{1}{4} + \dfrac{2}{4} = \boxed{\dfrac{3}{4}}$

10. [Place Value]

Circle the number closest to 200.

189   195

210   192   ⟨201⟩   203

11. [Word Numbers]

Write in numerals:

two hundred thousand

$$\boxed{200\,000}$$

12. [Money]

Calculate the cost of 2 movie tickets at $7.50 each.

$ 15.00

13. [Number Patterns]

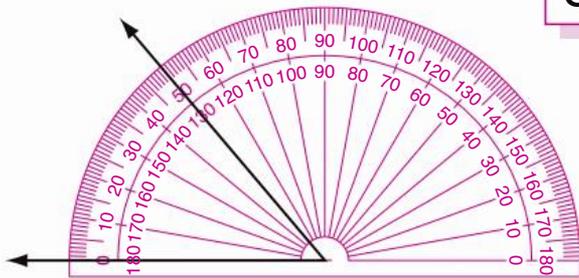25 , 50 , 100 , 200 , | 400 |

14. [Time]

Write in hours.

2 days = | 48 hours |

15. [Measuring]

Use the protractor to measure the size of this angle.
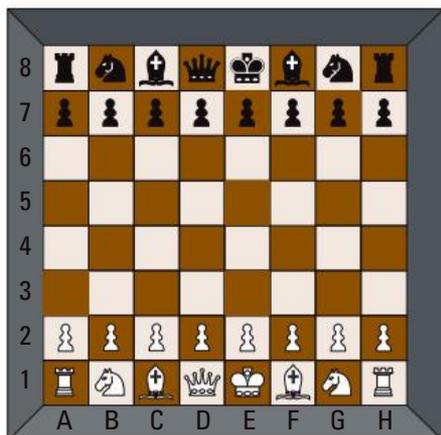
50°

16. [Shapes]

This rectangle has:

A) all sides of equal length
B) one acute angle
C) no line of symmetry
D) parallel sides

D

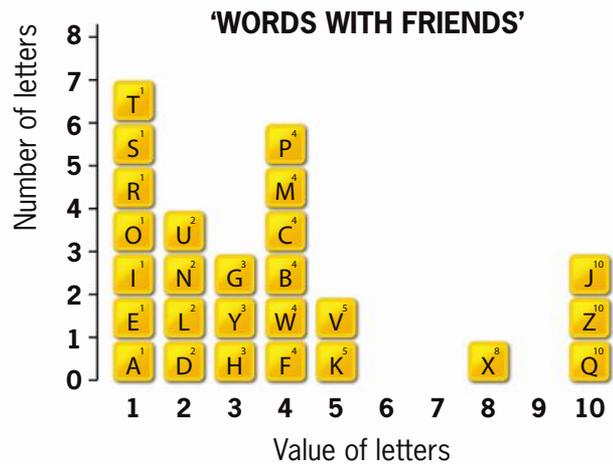**17.** [Location]

In which grid position is the black king (♛)?

A) D1   B) E8   C) F1   D) D8

D

18. [Statistics / Probability]

How many 'Words with friends' letters have a value of 4?

'WORDS WITH FRIENDS'

6

19. [Problem Solving 1] *

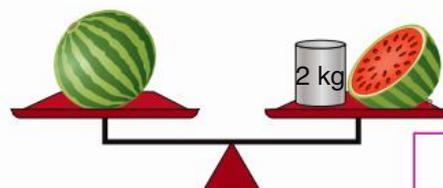How many times do you write the digit 2 when writing all the numbers from 30 to 70?

4

20. [Problem Solving 2] *

Colin had $40. Lachlan had $20. How much did Colin give Lachlan if they now have the same amount?

$ 10

21. [Problem Solving 3] *

Find the weight of a whole watermelon. [There are whole and half watermelons on the balance.]

4 kg

ROSE

Name: ....

Due Date: .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count on by 5s.

| 785 | 790 | 795 | 800 | 805 |

2. [Addition / Subtraction]

Complete the addition.

$+$
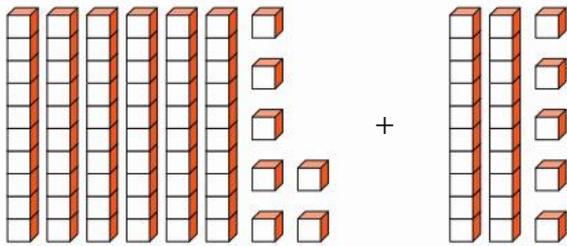
$67 + 25 = \boxed{92}$

3. [Multiplication / Division]
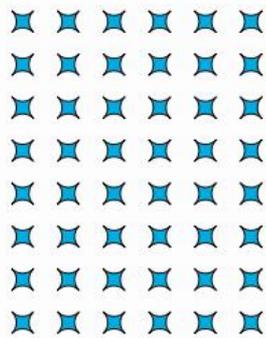
$8 \times \boxed{6} = 48$

$6 \times 8 = \boxed{48}$

$\boxed{48} \div 6 = 8$

$48 \div \boxed{8} = 6$

4. [+ Whole Numbers]

$$\begin{array}{r} 1\,5\,1\,7 \\ +\,3\,2\,8\,4 \\ \hline \boxed{4\,8\,0\,1} \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 3\,0\,0 \\ -\,1\,5\,7 \\ \hline \boxed{1\,4\,3} \end{array}$$

6. [× Whole Numbers]

$3 \times 4 \times 2 = \boxed{24}$

7. [÷ Whole Numbers]

$$\boxed{3\,4\,1}$$
$$2\,)\,\overline{6\,8\,2}$$

8. [Word Problems]

The average rainfall in Invercargill for June is 95 mm, for July is 78 mm and for August is 62 mm. How many millimetres of rain does Invercargill average in winter?

[Write the number sentence.]

$\boxed{95 + 78 + 62 = 235\,\text{mm}}$

9. [Fractions]

$\dfrac{4}{5} - \dfrac{1}{5} = \boxed{\dfrac{3}{5}}$

10. [Place Value]

Which of these numbers is closest to 700?

$719 , 790 , 705 , 690 , 708 , 694$

$\boxed{705}$

11. [Word Numbers]

Write in numerals:

five hundred and fifty thousand

$\boxed{550\,000}$
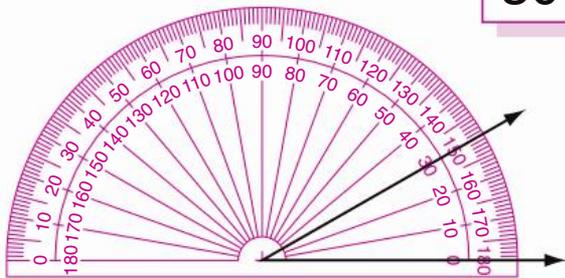
1 2 3 4 5 6 7 8 9 10 11

12. [Money]

Calculate the cost of 2 shakes at $3.90 each.

$ 7.80

13. [Number Patterns]

1 , 3 , 9 , 27 , 81 ,   243

14. [Time]

Write in minutes.

300 seconds =   5 minutes

15. [Measuring]

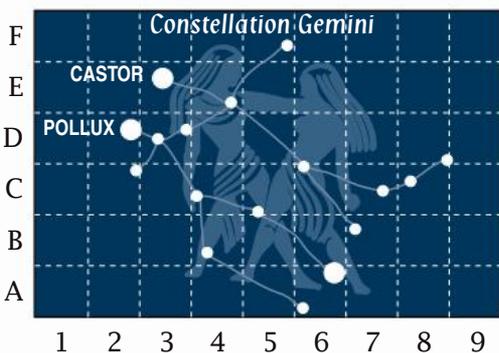Use the protractor to measure the size of this angle.

30°

16. [Shapes]

This triangle has:

A) one line of symmetry
B) two parallel sides
C) two perpendicular sides
D) one obtuse angle

C

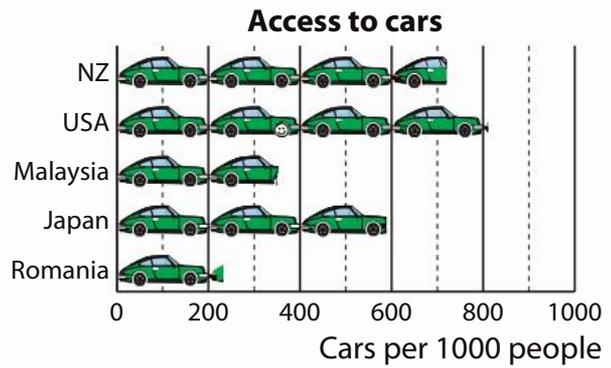**17.** [Location]

In which grid position is the star 'Castor'?

A) 2D   B) 3E   C) 3B   D) 8C

B

18. [Statistics / Probability]

Which country has closest to 600 cars for every 1000 people?

Access to cars

Cars per 1000 people

Japan

19. [Problem Solving 1] *

How many times do you write the digit 3 when writing all the numbers from 1 to 50?   15

20. [Problem Solving 2] *

Sam had $21. Kate had $11. How much did Sam give Kate if they now have the same amount? $ 5

21. [Problem Solving 3] *

Find the weight of a whole orange. [There are whole and half oranges on the balance.]

200 g

Rose 4.6 © Copyright. Not to be reproduced without permission. J. B. Wright 2020

MATHS MATE

Term 4 - Sheet 7
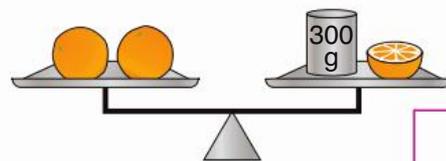
Name: ....

Due Date: ☺ .... / .... / ....

Parent's Signature: ....

1. [Counting]

Count on by 8s.

| 384 | 392 | 400 | 408 | 416 |

2. [Addition / Subtraction]

Complete the addition.

| 26 | + | 68 | = | 94 |

3. [Multiplication / Division]

$5 \times 11 = 55$

$11 \times 5 = 55$

$55 \div 11 = 5$

$55 \div 5 = 11$

4. [+ Whole Numbers]

$$\begin{array}{r} 3\,2\,7\,4\,9 \\ +\,2\,5\,3\,6\,8 \\ \hline 5\,8\,1\,1\,7 \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 8\,2\,0 \\ -\,2\,3\,9 \\ \hline 5\,8\,1 \end{array}$$
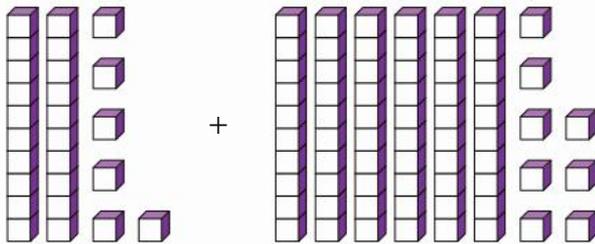
6. [× Whole Numbers]

$7 \times 2 \times 3 = 42$

7. [÷ Whole Numbers]

$$3\,\overline{)\,9\,0\,6} = 302$$
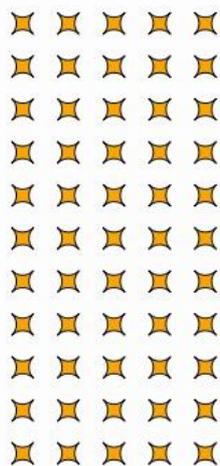
8. [Word Problems]

On average a donkey has a life span of 45 years. A goat's life span is one third of this. What is the life span of a goat?
[Write the number sentence.]

$45 \div 3 = 15$ years

9. [Fractions]

$\dfrac{2}{10} + \dfrac{5}{10} = \dfrac{7}{10}$

10. [Place Value]

Round 6059 to the nearest ten.

6060

11. [Word Numbers]

Write in numerals:

nine million

9 000 000

1 2 3 4 5 6 7 8 9 10 11

12. [Money] *

Calculate the total cost of:

a hamburger at $4.50
chips at $2.50
a drink at $1.50

$ 8.50

13. [Number Patterns]

2 , 20 , 200 , 2000 , **20 000**
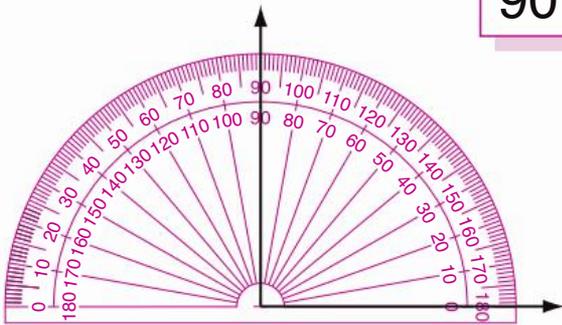
14. [Time]

Circle the longest time.

28 days   (5 weeks)   1 month

15. [Measuring]

Use the protractor to measure the
size of this angle.

90°

16. [Shapes]

This parallelogram has:

A)   two acute angles
B)   all sides of equal length
C)   two perpendicular sides
D)   one line of symmetry

A

17. [Location]

In which grid position is
Wellington, New Zealand?

A) B2   B) G2   C) G6   D) H2

D

18. [Statistics / Probability]

Which Nobel prize has been won
12 times by women?

**Nobel prizes won by women
(1901 - 2019)**
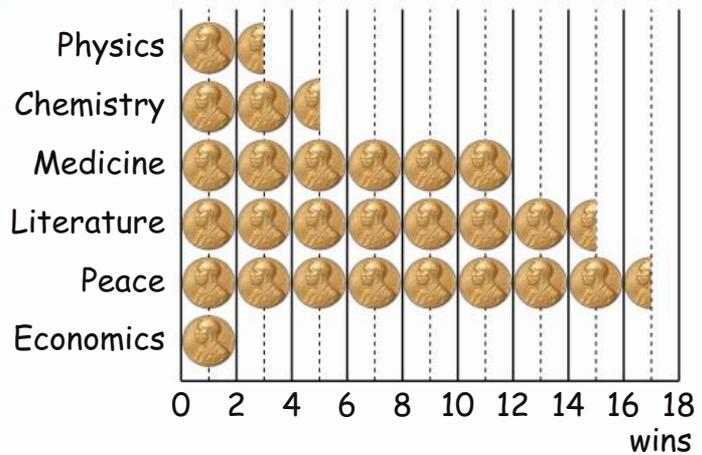
medicine

19. [Problem Solving 1] *

How many times do you write the
digit 5 when writing all the
numbers from 40 to 100?

16

20. [Problem Solving 2] *

Violet had $13. Finn had $27.
How much did Finn give Violet if
they now have the same amount?

$ 7

21. [Problem Solving 3] *

Find the weight of one present.

500 g

MATHS MATE
Term 4 - Sheet 8

ROSE

1. [Counting]

Count on by 9s.

| 180 | 189 | 198 | 207 | 216 |

2. [Addition / Subtraction]

Complete the addition.

49 + 38 = 87

3. [Multiplication / Division]
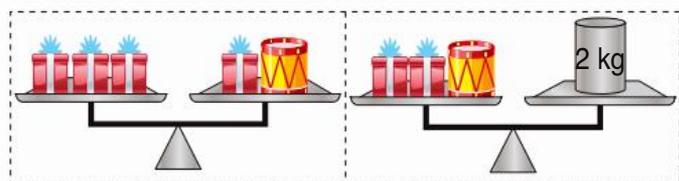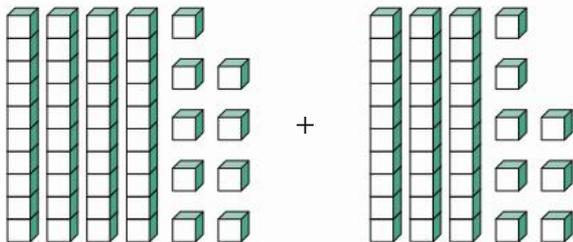
$7 \times \boxed{8} = 56$

$\boxed{8} \times 7 = 56$

$\boxed{56} \div 8 = 7$

$56 \div \boxed{7} = 8$
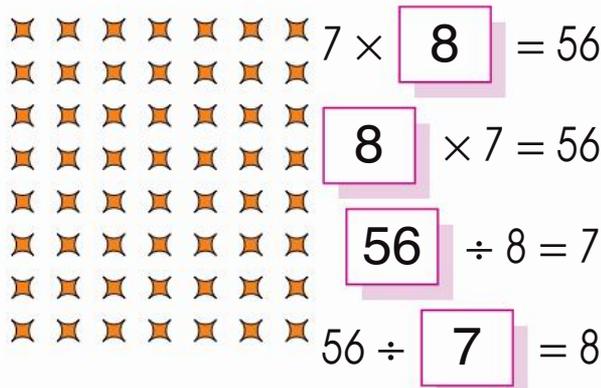
4. [+ Whole Numbers]

$$\begin{array}{r} 2\,6\,5\,9\,5 \\ +\,1\,3\,4\,1\,5 \\ \hline 4\,0\,0\,1\,0 \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 4\,0\,2 \\ -\,2\,5\,7 \\ \hline 1\,4\,5 \end{array}$$

6. [× Whole Numbers]

$6 \times 8 \times 5 = \boxed{240}$

7. [÷ Whole Numbers]

$$4\,\overline{)\,8\,0\,4} = \boxed{201}$$

8. [Word Problems]

A quire is 25 sheets of paper and a ream is 500. How much bigger is a ream than a quire?
[Write the number sentence.]

$500 - 25 = 475$

9. [Fractions]

$\dfrac{7}{12} - \dfrac{2}{12} = \boxed{\dfrac{5}{12}}$

10. [Place Value]

Round 14 321 to the nearest hundred.

14 300

11. [Word Numbers]

Write in numerals:

four million, six hundred thousand

4 600 000

12. [Money] *

Calculate the total cost of:

wrapping paper at $3.50
scissors at $8.00
tape at $4.00

$15.50

13. [Number Patterns]

6 , 30 , 150 , 750 , 3750

14. [Time]

Circle the shortest time.

(2 minutes)   200 seconds   20 days

15. [Measuring]

Use the protractor to measure the size of this angle.

125°

16. [Shapes]

This triangle has:

A) two parallel sides
B) all sides of equal length
C) one line of symmetry
D) one right angle

C

17. [Location]

If the position of the pirate's hat is B3, what is the grid position of the sombrero?

B1
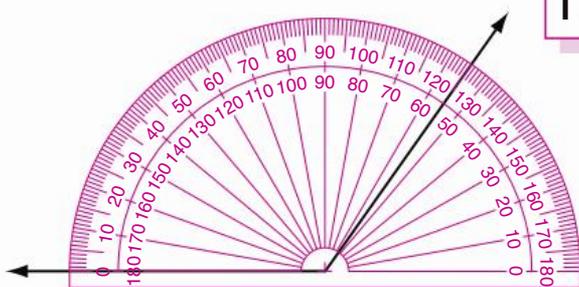
18. [Statistics / Probability]

How many European Union countries have 100, or more, species of butterflies?

Butterfly species in the European Union (EU) countries
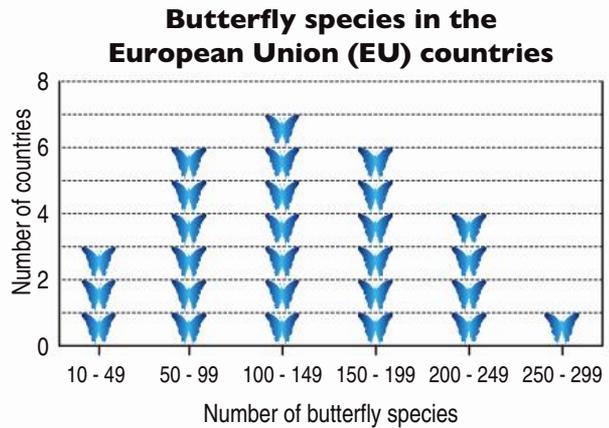
18

19. [Problem Solving 1] *

How many times do you write the digit 4 when writing all the numbers from 10 to 100?

19

20. [Problem Solving 2] *

Alex had $24. Liam had $36. How much did Liam give Alex if they now have the same amount?

$6

21. [Problem Solving 3] *

Find the weight of a cherry.

20 g

MATHS MATE

Teacher Resource

1.1

1. 199, 200, 201
2.
3. $3 \times 9 = 27$
4. 10, 22, 17, 11, 24
5. 9, 4, 6, 3, 8
6. 21, 27, 33, 12, 18
7. 8
8. $40 + 60 = 100 \text{ km/h}$
9. [any small rectangle]
10. 559
11. 19
12.
13. 23, 25
14. Tuesday
15. C
16.
17. behind
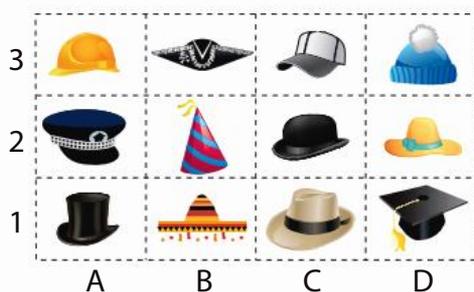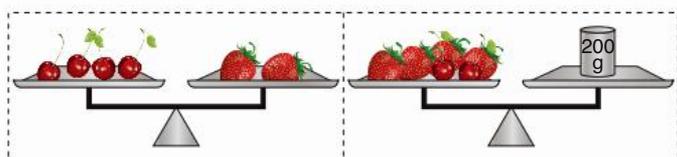18.

Number of balls used in games

Game	Tally
billiards	III
snooker	JHT JHT JHT JHT II
8-ball	JHT JHT JHT II

19. 14
20. 16
21. 10

1.2

1. 984, 985, 986
2.
3. $4 \times 6 = 24$
4. 4, 23, 7, 11, 19
5. 3, 9, 16, 4, 2
6. 63, 18, 45, 27, 81
7. 5
8. $200 \div 40 = 5 \text{ g}$
9. [any 2 small squares]
10. 5 hundreds, 4 tens 5 ones = 545
11. ninety
12.
13. 29, 32
14. 5
15. A
16.
17. inside
18.

New stamp sets - 2012

Set	Tally	Number
Precious moments	JHT I	6
Year of the dragon	II	2
City transport	JHT	5
Technology - then & now	JHT	5
Football legends	JHT III	8

19. 18
20. 31
21. 21

1.3

1. 622, 621, 620, 619 618
2. $8 + ⑦ + 9 + ③ = 27$
3. 9
4. 17, 22, 26, 10, 25
5. 5, 7, 2, 23, 9
6. 20, 28, 48, 12, 24
7. 7
8. $8 \times 5 = 40$
9.
10. 1719
11. seventy-two
12. A
13. 29, 33
14. 11 June 2021 OR 11/6/2021
15. 185 km
16. A
17.
18. 4

'Stewardesses'

Vowel	Tally	Number
a	I	1
e	III	3

19. 18
20. 34
21. 14

1.4

1. 2376, 2377, 2378 2379
2. $⑧ + 7 + 4 + ② = 21$
3. $36 \div 6 = 6$
4. 15, 24, 18, 23, 27
5. 13, 5, 4, 22, 6
6. 32, 64, 72, 16, 80
7. 3
8. $38 - 4 = 34°C$
9. OR similar
10. 4086
11. 45
12. C
13. 50, 55
14. 22
15. 1050 m
16. C
17.
18. 14

'Floccinaucinihilipilification'

Vowel	Tally	Number
o	II	2
i	JHT IIII	9
a	II	2
u	I	1

19. 11
20. 28
21. 22

1.5

1. 49
2. $118 + 10 = 128$
3. 30, 30
4. 12, 25, 31, 16, 23
5. 6, 2, 27, 4, 18
6. 20, 40, 5, 45, 30
7. 8
8. $195 - 34 = 161$
9. [any 6 hearts]
10. 4 hundreds 3 tens 7 ones
11. 700
12. $3.10
13. 12, 10
14. Thursday
15. C
16.
17. Sir Edmund Hillary
18. 20
19.
20. 5
21. C

1.6

1. 8, 16, 24, 32, 40, 48
2. $25 + 100 = 125$
3. 28, 28
4. 18, 26, 12, 35, 21
5. 25, 9, 16, 2, 7
6. 40, 16, 72, 56, 80
7. 6
8. $4 + 50 + 1 = 55$
9. [any 6 clubs]
10. 5 hundreds 2 tens 8 ones
11. 905
12. $20.70
13. 8, 5
14. Saturday
15. A
16.
17. Kewell
18. 30 cm
19.
20. 10
21. A

1.7

1. 4, 8, 12, 16, 20, 24
2. 10
3. 4
4. 32, 3, 17, 40, 5
5. 2, 5, 8, 23, 19
6. 35, 49, 7, 56, 0
7. 7
8. $4 \times 60 = 240$ min
9. $\dfrac{4}{5}$
10.

Hundreds	Tens	Ones
4	9	6

11. 680
12. $27.10
13. 8, 3
14. October
15. 52 mL
16.
17. Harry
18. London
19.
20. 8
21. C

1.8

1. 9, 18, 27, 36, 45, 54
2. 23
3. 6
4. 24, 18, 42, 11, 20
5. 23, 8, 6, 4, 29
6. 27, 0, 63, 36, 81
7. 9
8. $24 \div 4 = 6$
9. $\dfrac{5}{6}$
10.

Thousands	Hundreds	Tens	Ones
2	3	1	7

11. 827
12. $61.60
13. 70, 60
14. autumn
15. 2400 g
16.
17.
18. 20
19.
20. 3
21. B

2.1

1. 900, 800, 700, 600 500
2. 31
3. 10

4. 42
5. 22
6. 15, 6, 24, 18, 21
7. 7, 3, 9, 12, 5
8. $190 + 103 = 293$
9. $\frac{2}{3}$
10. 8917
11. three hundred and two
12.

13. 83, 93
14. past
15. C
16. circle and square
17. Show Court 3
18. B
19. 10
20. ⑥②②⑥②②⑥②②⑥
21. 6

2.2

1. 3000, 4000, 5000 6000
2. 54
3. $2 \times 9 = 18$

4. 63
5. 44
6. 24, 6, 54, 18, 48
7. 12, 5, 9, 10, 7
8. $4 \times 7 = 28$
9. $\frac{3}{4}$
10. 2548
11. seven hundred and forty
12.

13. 54, 58
14. to
15. C
16. hexagon and triangle
17. Henry
18. A
19. 16
20. ④④②④④②④④②④
21. 14

2.3

1. 18, 24, 30, 36, 42, 48
2. 28
3. 50
4. 101
5. 63
6. 49, 35, 14, 42, 63
7. 5, 2, 7, 9, 12
8. $180 - 50 = 130 \, \text{kg}$
9. $\frac{5}{8}$
10. $236 = 200 + 30 + 6$
11. nine hundred and sixteen
12.
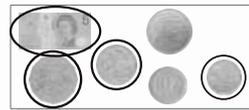
13. 57, 63
14.

15. A
16.

17. Shamrock Hotel
18. B
19. 8
20. ①③⑥①③⑥①③⑥①
21. 59 cm

2.4

1. 24, 32, 40, 48, 56, 64
2. 37
3. 200
4. 115
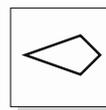5. 47
6. 8, 16, 20, 32, 12
7. 6, 3, 9, 8, 11
8. $24 \div 4 = 6h$
9. $\frac{3}{8}$
10. $1973 = 1000 + 900 + 70 + 3$
11. eight hundred and twenty-seven
12.

13. 42, 50
14.

15. B
16.
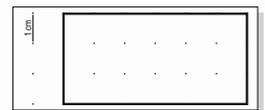
17. Shanghai
18. C
19. 21
20. ②⑦①②⑦①②⑦①②
21. 70

2.5

1. 9, 12, 15, 18, 21, 24 27
2. 9
3. 5
4. 75
5. 51
6. 360
7. 3, 10, 4, 2, 9
8. $4 \times 7 = 28$
9.
10. 1
11. 8006
12. A & B
13. 12, 8
14. B
15. 7 cm
16. 4
17. sheep
18. 3
19. 3
20. 9970
21. Kristin
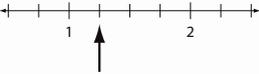
2.6

1. 4, 8, 12, 16, 20, 24 28
2. 8
3. $30 \div 5 = 6$
4. 93
5. 33
6. 300
7. 5, 8, 3, 6, 7
8. $100 \div 4 = 25$ years
9. $2\frac{1}{2}$
10. 8
11. 9058
12. A & C
13. 11, 5
14. A
15. 37 mL
16. 6
17.
18. birds
19. 6
20. 1019
21. Daniel
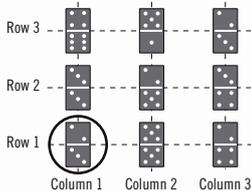
2.7

1. 20, 30, 40, 50, 60, 70 80, 90
2. 14
3. 63
4. 622
5. 17
6. 480
7. 4, 3, 9, 6, 10
8. $65 - 19 = 46$
9. $1\frac{3}{4}$
10. A
11. 1327
12. B & C
13. 16, 8
14. C
15. 5 cm
16. 8
17.
18. I
19. 7
20. 9931
21. Dee
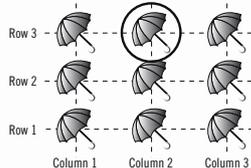
2.8

1. 21, 28, 35, 42, 49, 56 63, 70
2. 18
3. 48
4. 803
5. 18
6. 630
7. 3, 6, 5, 8, 9
8. $18\,052 + 11\,900$ $= 29\,952$
9. $2\frac{1}{4}$
10. A
11. 7200
12. B & C
13. 8, 1
14. A
15. 2.5 kg
16. 6
17.
18. Kenya
19. 8
20. 1089
21. Bree
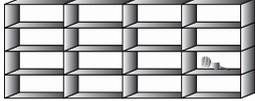
3.1

1.

2. $600 + 40 + 4 = 644$

3. $6 \times 12 = 72$

4. 6, 21, 22 18, 13

5. 665

6. 64

7. 3, 10, 4, 2, 9

8. $7 \times 7 = 49$ min

9. $\frac{3}{4} = \frac{9}{12}$

10. false

11. nine thousand one hundred

12. 13

13. 11, 13

14. 10:07 am

15. 20 cm

16.

17.

18. Australia

19.

20.
1	2	3	4
3	4	1	2
4	1	2	3
2	3	4	1

21.

3.2

1. even

2. $300 + 20 + 5 = 325$

3. $5 \times 8 = 40$

4. 18, 13, 22, 11, 15

5. 151

6. 54

7. 3, 9, 1, 7, 10

8. $145 + 75 = 220$

9. $\frac{4}{5} = \frac{8}{10}$

10. true

11. three thousand and eighty

12. 50

13. 13, 14

14. 9:45 am

15. 18 cm

16.

17. Lark St

18. 6

19.

20.
3	4	2	1
2	1	3	4
4	3	1	2
1	2	4	3

21. OR

3.3

1. odd

2. $148 - 26 = 122$

3. 9

4. 24, 21, 17, 26, 22

5. 231

6. 40

7. 2, 5, 8, 4, 10

8. $20 \div 2 = 10$ days

9. $\frac{4}{20} = \frac{1}{5}$

10. >

11. one thousand four hundred and six

12. 12

13. 17, 21

14. 7:34 am

15. 120 mm

16.

17. St James's Park

18. 9

19.

20.
3	2	1	4
1	4	3	2
2	1	4	3
4	3	2	1

21.

3.4

1.

2. $173 - 52 = 121$

3. 6

4. 13, 21, 14, 18, 15

5. 407

6. 32

7. 2, 6, 9, 4, 7

8. $3900 - 1800 = 2100$

9. $\frac{10}{15} = \frac{2}{3}$

10. <

11. four thousand and fifty-eight

12. 9

13. 21, 26

14. false

15. 22 m

16.

17. 1

18. 10

19.

20.
2	3	4	1
4	1	3	2
1	4	2	3
3	2	1	4

21.

3.5

1.
12   15   18 21 24 27   30   33

2. 28

3. $6 \times 3 = 3 \times 6$

4. 3

5. 2, 4, 9, 18, 7

6. 180

7. 9

8. $206 + 94 = 300$

9. $\dfrac{5}{6}$

0   1

10. 158

11. 84 000

12. $5.10

13. 4, 1

14. a quarter to five
OR four forty-five

15. 16 cm ^{2}

16. B

17. slide

18.

19.

+	1	4	2
3	4	7	5
2	3	6	4
5	6	9	7

20. 16

21. 20 min

3.6

1.
18   24 30   36   42   48 54   60

2. 15

3. $9 \times 5 = 5 \times 9$

4. 18

5. 10, 6, 1, 15, 7

6. 424

7. 7

8. $36 \div 9 = 4$

9. >

10. 8651

11. 63 100

12. $64.40

13. 8, 5

14. eight twenty-nine
OR twenty-nine
past eight

15. 21 cm ^{2}

16. B

17. turn

18.

Polygons	Number of sides
Octagon	8
Square	4
Heptagon	7

19.

+	2	1	5
1	3	2	6
3	5	4	8
4	6	5	9

20. 36

21. 6

3.7

1.
14   21 28 35   42   49   56   63

2. $44 + 35 = 79$

3. $5 \times 10 = 50$
$5 \times 5 = 25$
$5 \times 15 = 75$

4. 28

5. 5, 10, 12, 16, 8

6.
$$\begin{array}{r} 2\,7 \\ \times \ 6 \end{array}$$
42 —6×7 units
+ 120 —6×2 tens
162

7. 8

8. $9 \times 6 = 54$

9. $\dfrac{7}{8}$

0   1

10. 6971

11. 19 860

12. $5.60

13. 2, 1

14. six forty-two
OR eighteen to
seven

15. 18 cm ^{2}

16. A

17.

18.

19.

+	2	4	6
1	3	5	7
2	4	6	8
3	5	7	9

20. 6

21. 15

3.8

1.
30   40   50 60 70 80   90   100

2. $25 + 73 = 98$

3. $6 \times 10 = 60$
$6 \times 6 = 36$
$16 \times 6 = 96$

4. 16

5. 9, 14, 5, 8, 3

6.
$$\begin{array}{r} 7\,5 \\ \times \ 9 \end{array}$$
45 —9×5 units
+ 630 —9×7 tens
675

7. 9

8. $1952 - 1936$
$= 16$ years

9. <

10. 8942

11. 20 074

12. $7.80

13. 8, 6

14. twenty-five past
ten
OR ten twenty-five

15. 20 cm ^{2}

16. B

17.

18.

19.

+	1	2	3
5	6	7	8
4	5	6	7
3	4	5	6

20. 10

21. $60

4.1

1. 93
2. false
3. 8 remainder 2
4. 639
5. 4
6. 69
7. 7
8. $56 - 45 = 11$ years
9. $\frac{4}{6}$
10. 337, 374, 474, 734 743
11. forty-seven thousand
12. $115
13. 32
14. 7 hours
15. A
16. right
17. piano
18. 14
19. 10
20. 25 min
21. 4

4.2

1. 72
2. false
3. 5 remainder 3
4. 7271
5. 9
6. 486
7. 64
8. $26 + 18 + 26 = 70$
9. $\frac{7}{7}$
10. 6964, 6449, 4669 496
11. sixty thousand, one hundred
12. $1.90
13. 60 000
14. Saturday
15. B
16. acute
17. 312
18. A
19. 12
20. 12:20 pm
21. 5

4.3

1. 127
2. 8
3. 3 remainder 4
4. 802
5. 20
6. 580
7. 9
8. $6 \times 8 = 48$
9. $\frac{2}{8}$
10. 6521, 5612, 5126 2615
11. twelve thousand, nine hundred
12. $4.60
13. 80
14. 28 minutes
15. A
16. A
17. group table
18. 2, 4, 8, 16, 32
19. 15
20. 9:45 am
21. 4

4.4

1. 146
2. 6
3. 5 remainder 5
4. 7814
5. 17
6. 924
7. 45
8. $40 \div 8 = 5$
9. $\frac{9}{10}$
10. 4089, 8094, 8490 9084
11. twenty thousand and eighty
12. $4.10
13. 1250
14. Spider Man: Far From Home
15. C
16. C
17. Egypt
18. A
19. 8
20. no
21. $4

4.5

1. 208, 212, 216, 220 224
2. 73
3. $9 \times 3 = 27$
   $3 \times 9 = 27$
   $27 \div 3 = 9$
   $27 \div 9 = 3$
4. 5234
5. 125
6. 70
7. 32
8. $50 \times 6 = 300$
9. $\frac{3}{4}$
10. 210 189 192 (201) 195 203
11. 200 000
12. $15.00
13. 400
14. 48 hours
15. 50°
16. D
17. D
18. 6
19. 4
20. $10
21. 4 kg

4.6

1. 785, 790, 795, 800 805
2. 92
3. $8 \times 6 = 48$
   $6 \times 8 = 48$
   $48 \div 6 = 8$
   $48 \div 8 = 6$
4. 4801
5. 143
6. 24
7. 341
8. $95 + 78 + 62 = 235$ mm
9. $\frac{3}{5}$
10. 705
11. 550 000
12. $7.80
13. 243
14. 5 minutes
15. 30°
16. C
17. B
18. Japan
19. 15
20. $5
21. 200 g

4.7

1. 384, 392, 400, 408 416
2. $26 + 68 = 94$
3. $5 \times 11 = 55$
   $11 \times 5 = 55$
   $55 \div 11 = 5$
   $55 \div 5 = 11$
4. 58 117
5. 581
6. 42
7. 302
8. $45 \div 3 = 15$ years
9. $\frac{7}{10}$
10. 6060
11. 9 000 000
12. $8.50
13. 20 000
14. 28 days (5 weeks) 1 month
15. 90°
16. A
17. D
18. medicine
19. 16
20. $7
21. 500 g

4.8

1. 180, 189, 198, 207 216
2. $49 + 38 = 87$
3. $7 \times 8 = 56$
   $8 \times 7 = 56$
   $56 \div 8 = 7$
   $56 \div 7 = 8$
4. 40 010
5. 145
6. 240
7. 201
8. $500 - 25 = 475$
9. $\frac{5}{12}$
10. 14 300
11. 4 600 000
12. $15.50
13. 3750
14. (2 minutes) 200 seconds 20 days
15. 125°
16. C
17. B1
18. 18
19. 19
20. $6
21. 20 g

MATHS MATE

Teacher Resource

A Teacher's Guide to approaching
PROBLEM SOLVING

Dear Educator

The following Problem Solving Hints & Solutions have been designed to support users of the Maths Mate Programme.

The Maths Mate problem solving questions at each level have proved challenging for many.

Within these Hints & Solutions only one or two alternative strategies have been presented to show how the problem may be solved. Often many other approaches are both practical and possible; after all, "the human race has not really started to 'think'." - Edward De Bono

Outlined on this page is a general problem solving approach that may help you to develop the problem solving skills of your students.

Inevitably, students are more likely to be successful if they:

- *have the courage to try,*
- *can find a place to start and*
- *have approach options to choose from.*

Best wishes
The Maths Mate Team

FIRST:

* Accept the challenge.
* Read the problem.
* Read the problem out loud.

THEN:

* Find out the meaning of any unknown terms.
* Highlight the essential truths.
* Restate the problem in your own words.
* Break the problem up into parts.

BE SURE ABOUT:

* What you know from the problem. (Given)
* What you need to find out. (Goal)

CHOOSE YOUR SOLUTION STRATEGY/STRATEGIES:

1. Write a numerical sentence deciding which operations to use, given the word statements.
2. Look for a pattern then make and test generalisations that describe the relationship between variables.
3. Draw a diagram: sketch
   table
   graph
   number line
   OR Make a model.
4. Simplify the problem and work on a reduced version. Extrapolate back to the original problem.
5. Be systematic. Make a list. Progress step by step.
6. Work backwards if you have the answer.
7. Use trial and error. Estimate, check against the facts and then refine your estimation.

WHERE TO START:

* Start: with what is known
   with an odd or distinctive feature
   with the smallest
   with the easiest.

FINALLY:

* Double check your answer against the original statements. Does your answer satisfy all the conditions of the problem?

PRESENTATION:

* Choose suitable modes of communication to present and explain your outcomes and results.

1.1

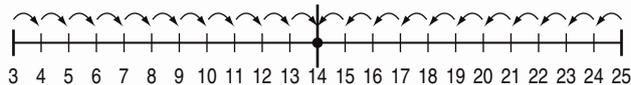**19.** **Hint:** Draw a number line. How many units are between 3 and 25 on the number line?
Solution:
$25 - 3 = 22$
There are 22 units between 25 and 3.
So there are 22 units to divide, half each.
Half of 22 is 11.
$3 + 11 = 14$ OR $25 - 11 = 14$

14 is halfway between 3 and 25.

20. **Hint:** How many squares in each figure? Look for a pattern.
Solution: There is one square in figure 1, two squares in figure 2 and three squares in figure 3. It follows that there would be four squares in figure 4 and five squares in figure 5.
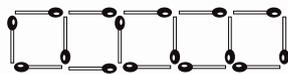A diagram would look like this:

fig. 5

You can count the matchsticks or look for a pattern.
The first square has 4 matchsticks. Adding the second square needs 3 more matchsticks. Adding the third square needs 3 more matchsticks.
The pattern is: Adding any square after the first needs 3 extra matchsticks.
$4 + 3 + 3 + 3 + 3 = 16$ matchsticks.

There would be **16** matchsticks in the fifth figure.

21. **Hint:** Check the number of points for each result.
Solution: An outright win gains 6 points.
A 1st innings win gains 2 points.
Two first innings wins would be twice this.
$2 + 2 = 4$ points
So Ricky's team has $6 + 4 = 10$ points in total.

They are on **10** points.

1.2

19. **Hint:** Draw a number line. How many units are between 6 and 30 on the number line?
Solution:
$30 - 6 = 24$
There are 24 units between 30 and 6.
So there are 24 units to divide, half each.
Half of 24 is 12.
$6 + 12 = 18$ OR $30 - 12 = 18$
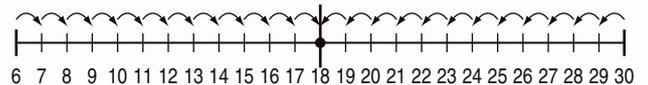
18 is halfway between 6 and 30.

20. **Hint:** How many matchsticks in each house? Draw a table to list the results. Look for a pattern.
Solution:

The first house has 6 matchsticks. Adding the second house needs only 5 more matchsticks.
In fact adding any house after the first needs 5 extra matchsticks.
A table would look like this:

Houses	1	2	3	4	5	6
Matchsticks	6	11	16	21	26	31

$+5 \quad +5 \quad +5 \quad +5 \quad +5$

It would take **31** matchsticks to make a row of 6 houses.

21. **Hint:** Check the number of points for each score.
Solution: A touchdown scores 6 points.
Three touchdowns would score 3 lots of 6 points.
$6 + 6 + 6 = 18$ points
A field goal scores 3 points.
So Todd's team has $18 + 3 = 21$ points in total.

Todd's team scored **21** points.

19. **Hint:** Draw a number line. How many units are between 5 and 31 on the number line?
Solution:
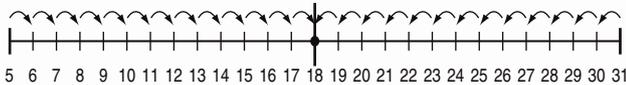31 – 5 = 26
There are 26 units between 31 and 5.
So there are 26 units to divide, half each.
Half of 26 is 13.
5 + 13 = 18 OR 31 – 13 = 18

18 is halfway between 5 and 31.

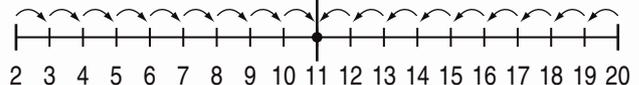**19.** **Hint:** Draw a number line. How many units are between 2 and 20 on the number line?
Solution:
20 – 2 = 18
There are 18 units between 20 and 2.
So there are 18 units to divide, half each.
Half of 18 is 9.
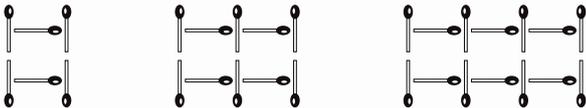2 + 9 = 11 OR 20 – 9 = 11

11 is halfway between 2 and 20.

20. **Hint:** How many matchsticks in each section? Draw a table to list the results. Look for a pattern.
Solution:

The first section has 6 matchsticks. Adding the second section needs only 4 more matchsticks.
In fact adding any section after the first needs 4 extra matchsticks.
A table would look like this:

Sections	1	2	3	4	5	6	7	8
Matchsticks	6	10	14	18	22	26	30	34

+4 +4 +4 +4 +4 +4 +4

It would take **34** matchsticks to make an 8-section fence.

20. **Hint:** How many squares in each figure? Look for a pattern.
Solution: There is one square in figure 1, three squares in figure 2, five squares in figure 3 and seven squares in figure 4. It follows that there would be nine squares in figure 5.
A diagram would look like this:
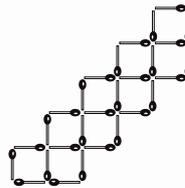
fig. 5

You can count the matchsticks or look for a pattern.
Figure 1 has 1 square and 4 matchsticks.
Figure 2 has 2 more squares and needs 6 more matchsticks.
Adding 2 more squares, to move from figure 2 to figure 3, also needs 6 more matchsticks.
The pattern is: Adding any 2 more squares needs 6 extra matchsticks.
4 + 6 + 6 + 6 + 6 = 28 matchsticks.

There would be **28** matchsticks in the fifth figure.

21. **Hint:** Check the number of points for each result.
Solution: A goal inside the 3-point line scores 2 points. Four goals from there would be four lots of this.
2 + 2 + 2 + 2 = 8 points
A goal outside the 3-point line scores 3 points. Two goals from there would be two lots of this.
3 + 3 = 6 points
So Marian's team has 8 + 6 = 14 points in total.

Marian scored **14** points.

21. **Hint:** Check the number of points for each result.
Solution: A win gains 4 points. Five wins would be five lots of this.
4 + 4 + 4 + 4 + 4 = 20 points
A draw gains 2 points.
Losses and byes gain no points.
So the Ravens have 20 + 2 = 22 points in total.

The Ravens scored **22** points.

1.5

19. **Hint:** Look for a pattern. Find the operations used to move from number to number.
Solution: Start from the bottom left of the diagram and move up and down as shown by the arrows.
Going up, add 3 to move from 0 to 3 and from 3 to 6.
Going down, subtract 2 to move from 6 to 4 and from 4 to 2.
The same pattern repeats on the next branches of the diagram.

The missing numbers are:

20. **Hint:** How many eyes and legs does 1 horse have? How many eyes and legs does 1 child have? Use trial and error. Draw a table.
Solution: A table reveals:

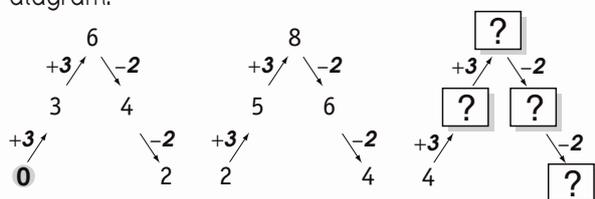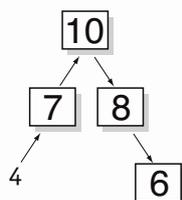| No of Children	No of Horses	How many eyes			How many legs		
		Child	Horse	Total	Child	Horse	Total
1	1	2	2	4	2	4	6
2	2	4	4	8	4	8	12
3	3	6	6	12	6	12	18
4	4	8	8	16	8	16	24
5	5	10	10	20	10	20	30

There were **5** horses.

21. **Hint:** Trace the net of the cube. Make a model.
Solution: Cube **C** is Bron's.

1.6

19. **Hint:** Look for a pattern. Find the operations used to move from number to number.
Solution: Start from the bottom left of the diagram and move up and down as shown by the arrows.
Going up, add 4 to move from 1 to 5 and from 5 to 9.
Going down, subtract 1 to move from 9 to 8 and from 8 to 7.
The same pattern repeats on the next branches of the diagram.
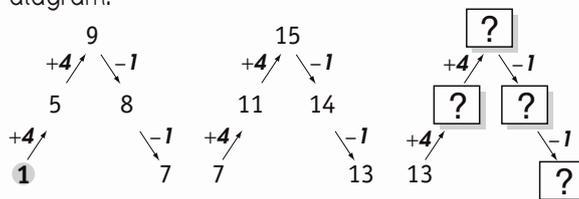
The missing numbers are:
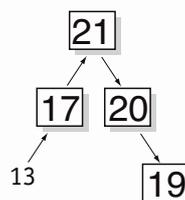
20. **Hint:** How many eyes and legs does 1 pelican have? How many eyes and legs does 1 rabbit have? Use trial and error. Draw a table.
Solution: There are 24 eyes altogether and each animal has 2 eyes. Therefore there would be half of 24, or 12 animals.
Pelicans have 2 legs and rabbits have 4 legs.
Try all animals are pelicans:
If all 12 animals had 2 legs there would be
$12 \times 2 = 24$ legs. (incorrect)
A table reveals:

Number of pelicans	Pelican legs	Number of rabbits	Rabbit legs	Total legs
12	$12 \times 2 = 24$	0	$0 \times 4 = 0$	$24 + 0 = 24$
11	$11 \times 2 = 22$	1	$1 \times 4 = 4$	$22 + 4 = 26$
10	$10 \times 2 = 20$	2	$2 \times 4 = 8$	$20 + 8 = 28$
9	$9 \times 2 = 18$	3	$3 \times 4 = 12$	$18 + 12 = 30$
8	$8 \times 2 = 16$	4	$4 \times 4 = 16$	$16 + 16 = 32$
7	$7 \times 2 = 14$	5	$5 \times 4 = 20$	$14 + 20 = 34$
6	$6 \times 2 = 12$	6	$6 \times 4 = 24$	$12 + 24 = 36$
5	$5 \times 2 = 10$	7	$7 \times 4 = 28$	$10 + 28 = 38$
4	$4 \times 2 = 8$	8	$8 \times 4 = 32$	$8 + 32 = 40$
3	$3 \times 2 = 6$	9	$9 \times 4 = 36$	$6 + 36 = 42$
2	$2 \times 2 = 4$	10	$10 \times 4 = 40$	$4 + 40 = 44$
1	$1 \times 2 = 2$	11	$11 \times 4 = 44$	$2 + 44 = 46$

There are **10** rabbits at the zoo.

21. **Hint:** Trace the net of the cube. Make a model.
**Solution:** Cube **A** is Zac's.

1.7

19. **Hint:** Look for a pattern. Find the operations used to move from number to number.
Solution: Start from the bottom left of the diagram and move up and down as shown by the arrows.
Going up, add 10 to move from 0 to 10 and from 10 to 20.
Going down, subtract 4 to move from 20 to 16 and from 16 to 12.
The same pattern repeats on the next branches of the diagram.

```
       20              32              ?
    +10/  \-4      +10/  \-4      +10/  \-4
    10    16       22    28        ?    ?
+10/    \-4  +10/    \-4  +10/        \-4
 0       12  12          24    24       ?
```

The missing numbers are:

```
        44
       /  \
     34    40
    /        \
  24          36
```
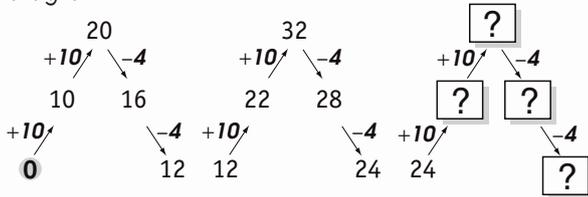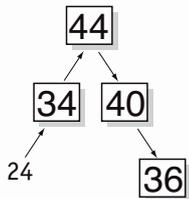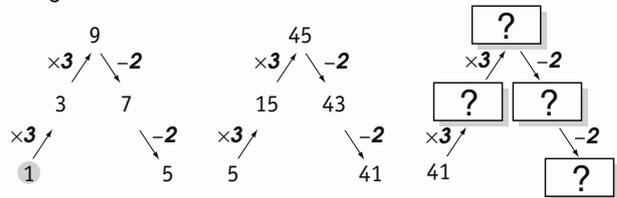
20. **Hint:** Use trial and error. Draw a table.
Solution: If Rachel has 20 two dollar coins then she would have $40. This is more than $28.
Try 10 coins of each.
A table reveals:

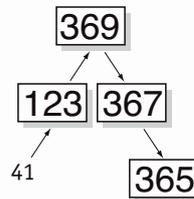| Number of $2	$2 total	Number of $1	$1 total	Total number of coins	Total money
10	$20	10	$10	20	$30
9	$18	11	$11	20	$29
8	$16	12	$12	20	$28

Rachel has **8** two dollar coins.

21. **Hint:** Trace the net of the pyramid. Make a model.
Solution: Pyramid **C** is Di's.

1.8

19. **Hint:** Look for a pattern. Find the operations used to move from number to number.
Solution: Start from the bottom left of the diagram and move up and down as shown by the arrows.
Going up, multiply by 3 to move from 1 to 3 and from 3 to 9.
Going down, subtract 2 to move from 9 to 7 and from 7 to 5.
The same pattern repeats on the next branches of the diagram.

```
       9              45              ?
    ×3/  \-2       ×3/  \-2       ×3/  \-2
    3    7        15    43         ?    ?
×3/    \-2   ×3/    \-2   ×3/        \-2
 1       5   5          41    41       ?
```

The missing numbers are:

```
        369
       /   \
     123    367
    /          \
  41           365
```

20. **Hint:** Draw a table showing the number of eyes, tails and arms for each actor. How many eyes do octopuses, fish and mermaids have? Consider who has tails.
Solution:

Actor	Number of eyes	Number of tails	Number of arms
Octopus	2	0	8
Fish	2	1	0
Mermaid	2	1	2

There are 24 eyes altogether and each octopus, fish and mermaid has 2 eyes.
Therefore there would be half of 24, or 12 actors.
Fish and mermaids each have 1 tail. There are 8 tails.
Fish + mermaids = 8 actors
The remaining actors must be octopuses.
12 – 8 = 4 actors (octopuses)
Each octopus has 8 arms.
4 × 8 = 32 arms
But there are 38 arms altogether.
38 – 32 = 6 arms
As fish do not have arms, this leaves 6 arms belonging to the mermaids.
Each mermaid has 2 arms.
6 ÷ 2 = 3 mermaids.

There are **3** mermaids in the play.

21. **Hint:** Trace the net of the prism. Make a model.
Solution: Prism **B** is Lin's.

19. **Hint:** Draw a diagram.
Solution:
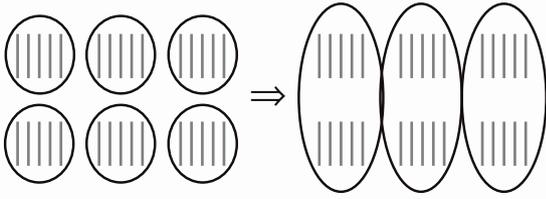
6 groups of 5 is the same as 3 groups of **10**.

20. **Hint:** Find the three numbers that add to 10. Use trial and error to check the order.
Solution: Ask yourself: What number added to 6 and 2 makes 10?
$6 + 2 + ? = 10$
$6 + 2 + 2 = 10$
Try 2 as the third number in the sequence and repeat the sequence.
Each consecutive 3 numbers must add to 10.
Check the sums as you move from left to right.

21. **Hint:** Draw a diagram.
Solution: Jared gives 4 of his 16 marbles to his best friend.

Jared shares the rest between him and his sister.

$16 - 4 = 12$
$12 \div 2 = 6$

Jared gets **6** marbles.

19. **Hint:** Draw a diagram.
Solution:
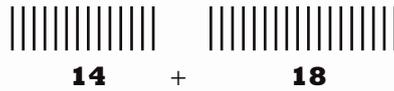
When you add 2 to the left side to get up to 16, then you have to subtract 2 from the right side.

$14 + 18$ is the same as $16 + $ **16**.

20. **Hint:** Find the three numbers that add to 10. Use trial and error to check the order.
Solution: Ask yourself: What number added to 4 and 2 makes 10?
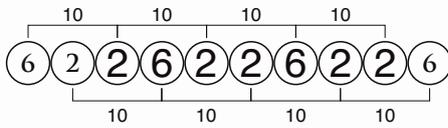$4 + ? + 2 = 10$
$4 + 4 + 2 = 10$
Try 4 as the third number in the sequence and repeat the sequence.
Each consecutive 3 numbers must add to 10.
Check the sums as you move from left to right.

21. **Hint:** How many is one dozen?
Solution: One dozen is 12 so two dozen is 2 times this.
$12 + 12 = 24$
Jude smashed 10 eggs.
$24 - 10 = 14$

There are **14** eggs left.

19. **Hint:** Draw a diagram.
Solution:

4 groups of 6 is the same as 3 groups of **8**.

19. **Hint:** Draw a diagram.
Solution:

| **19** | **+** | **22** |

| **20** | **+** | **21** |

When you add 1 to the left side to get up to 20, then you have to subtract 1 from the right side.

19 + 22 is the same as 20 + **21**.

20. **Hint:** Find the three numbers that add to 10. Use trial and error to check the order.
Solution: Only a 1 is given at the start but the 6 at the end must be used somehow. So ask yourself: What number added to 1 and 6 makes 10?
1 + 6 + ? = 10
1 + 6 + 3 = 10
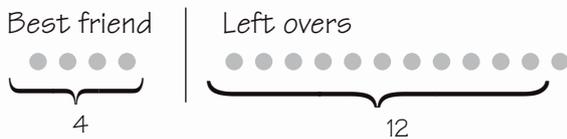Try 3 as the third number in the sequence and repeat the sequence.
Each consecutive 3 numbers must add to 10.
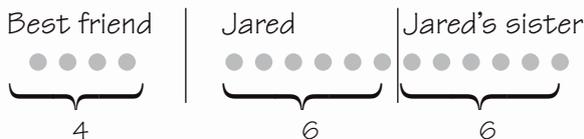Check the sums as you move from left to right.

incorrect

Try swapping the order of 3 and 6.

20. **Hint:** Find the three numbers that add to 10. Use trial and error to check the order.
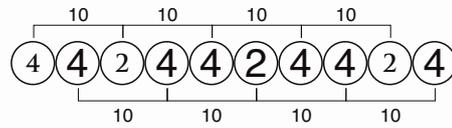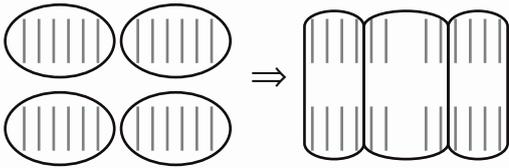**Solution:** Only a 2 is given at the start but the 1 at the end must be used somehow. So ask yourself: What number added to 2 and 1 makes 10?
2 + 1 + ? = 10
2 + 1 + 7 = 10
Try 7 as the third number in the sequence and repeat the sequence.
Each consecutive 3 numbers must add to 10.
Check the sums as you move from left to right.

incorrect
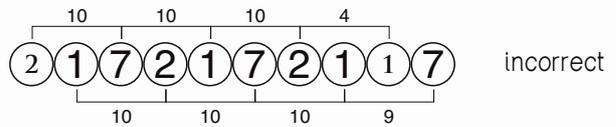
Try swapping the order of 1 and 7.

21. **Hint:** Draw a diagram. Work backwards.
Solution: Nimrod cut off 14 cm.

Then he cut the remaining plank into 3 equal pieces, 15 cm long.

The full length of the plank is
15 + 15 + 15 + 14 = 59 cm

The plank Nimrod found on the beach was **59** cm long.
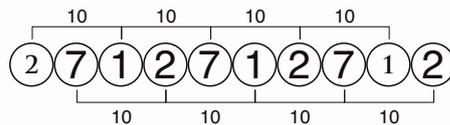
21. **Hint:** Draw a diagram.
Solution: Each pasture had 40 cows.

| 40 | 40 | 40 |

The farmer sold 50 cows.
50 = 40 + 10 (breaking down)
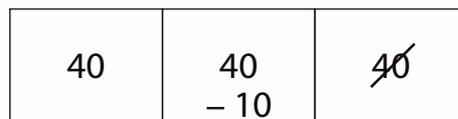
| 40 | 40 − 10 | 4̸0̸ |

The cows left in the pasture are
40 + 40 − 10 = 80 − 10
            = 70

There are **70** cows left.

19. **Hint:** Draw a diagram. OR Make a model.
Solution: Start with a side length of 1 toothpick. Increase the side length by 1 each time, until all possibilities are checked.

fig. 1

[1,6,1,6]

fig. 2

[2,5,2,5]

fig. 3

[3,4,3,4]
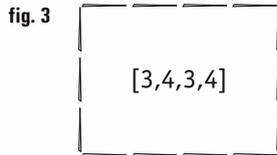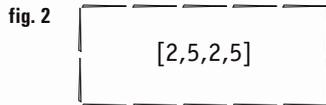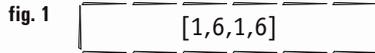
The next diagram in the pattern would only be a rotation of figure 3.

Only **3** different sized rectangles can be made using 14 toothpicks.

20. **Hint:** Use trial and error. Build up the number from left to right. Start with the largest digits. Check the sum of 25 as you go.
Solution: Start by placing a 9 in both the thousands and hundreds places.
$9 + 9 = 18$, so there is a sum of 7 left for the other two digits.
Place a 7 in the tens place and a 0 in the units place.

The largest 4-digit number with digits that add to 25 is **9970**.

21. **Hint:** Draw a diagram.
Solution: There are 3 pieces of information provided.
1) Liam finished second

Liam

2nd → *race direction*

2) Jason is behind Mia

Jason   Mia   Liam

2nd → *race direction*

3) Jason is ahead of Kristin
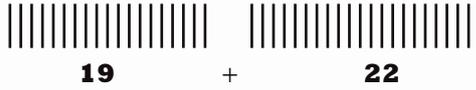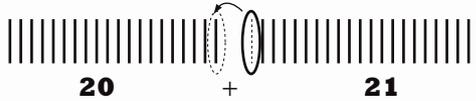
Kristin   Jason   Liam   Mia

2nd → *race direction*

There are only 4 people in all. If Jason is ahead of Kristin then Mia must have won because we know that Liam came second.

Kristin came last in the race.

19. **Hint:** Draw a diagram. OR Make a model.
Solution: Start with a side length of 1 toothpick. Increase the side length by 1 each time, until all possibilities are checked.

[1,12,1,12]

fig. 1

[2,11,2,11]

fig. 2

[3,10,3,10]

fig. 3

[4,9,4,9]

fig. 4

[5,8,5,8]

fig. 5

[6,7,6,7]

fig. 6
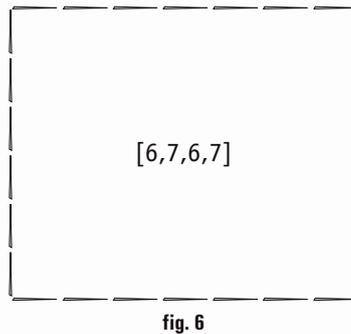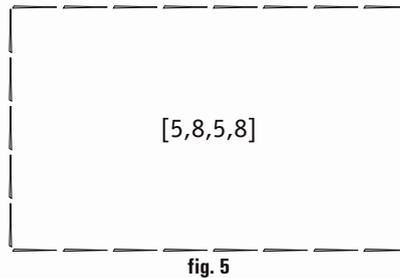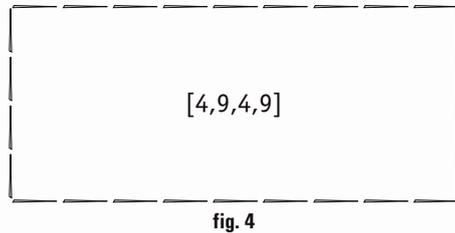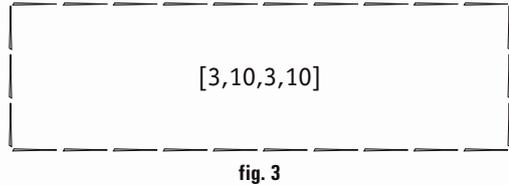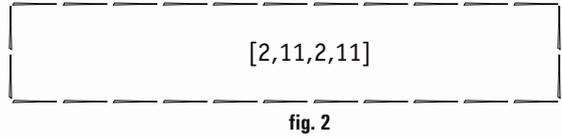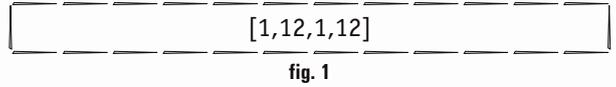
The next diagram in the pattern would only be a rotation of figure 6.

Only **6** different sized rectangles can be made using 26 toothpicks.

20. **Hint:** Use trial and error. Build up the number from left to right. Start with the smallest digits. Check the sum of 11 as you go.
Solution: Start by placing a 1 in the thousands place and a 0 in the hundreds and tens places.
$1 + 0 + 0 = 1$, so there is a 10 left for the units digit. (impossible)
Place a 1 in the tens place.
$1 + 0 + 1 = 2$, so there is a 9 left for the units digit.

The smallest 4-digit number with digits that add to 11 is **1019**.

21. **Hint:** Draw a diagram.
Solution: There are 5 pieces of information provided.
1) Con is older than Eve
2) Eve is older than Bianca

younger ←——— Bianca   Eve   Con ———→ older

3) Daniel is older than Eve

younger ←——— Bianca   Eve   Daniel   Con ———→ older
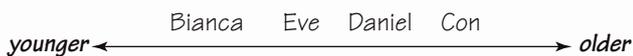
4) Andrea is younger than Con
5) Andrea is older than Daniel

younger ←——— Bianca   Eve   Daniel   Andrea   Con ———→ older

The third oldest person is **Daniel**.

19. **Hint:** Draw a diagram. OR Make a model.
Solution: Start with a side length of 1 toothpick. Increase the side length by 1 each time, until all possibilities are checked.

fig. 1   [1,14,1,14]

fig. 2   [2,13,2,13]

fig. 3   [3,12,3,12]

fig. 4   [4,11,4,11]

fig. 5   [5,10,5,10]

fig. 6   [6,9,6,9]

fig. 7   [7,8,7,8]
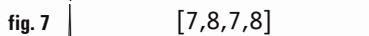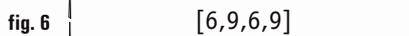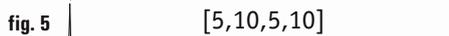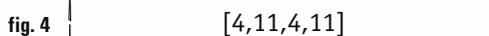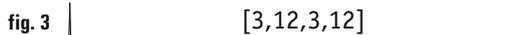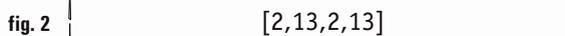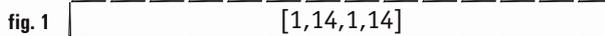
The next diagram in the pattern would only be a rotation of figure 7.

Only **7** different sized rectangles can be made using 30 toothpicks.

20. **Hint:** Use trial and error. Build up the number from left to right. Start with the largest digits. Check the sum of 22 as you go. Make sure the number ends in an odd digit.
Solution: Start by placing a 9 in both the thousands and hundreds places.
$9 + 9 = 18$, so there is a sum of 4 left for the other two digits.
Try to place a 4 in the tens place and a 0 in the units place. The number 9940 has the sum of its digits 22, but it is not odd.
Place a 3 in the tens place and a 1 in the units place.

The largest, odd 4-digit number with digits that add to 22 is **9931**.

21. **Hint:** Draw a diagram.
Solution: There are 4 pieces of information provided.
1) Bart finished third

Bart
3rd → *race direction*

2) Dee finished ahead of Bart and Caper

Bart   Caper   Dee
3rd → *race direction*
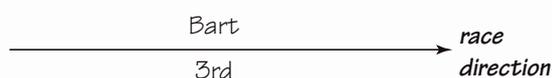
3) Air finished ahead of Caper
4) Air finished behind Dee

Caper   Bart   Air   Dee
3rd → *race direction*

There are only 4 horses in the race. If Air finished ahead of Caper then Caper must be fourth because we know that Bart came third.

Dee won the race.

19. **Hint:** Draw a diagram. OR Make a model.
Solution: Start with a side length of 1 toothpick. Increase the side length by 1 each time, until all possibilities are checked.

fig. 1   [1,16,1,16]

fig. 2   [2,15,2,15]

fig. 3   [3,14,3,14]

fig. 4   [4,13,4,13]

fig. 5   [5,12,5,12]

fig. 6   [6,11,6,11]

fig. 7   [7,10,7,10]

fig. 8   [8,9,8,9]

The next diagram in the pattern would only be a rotation of figure 8.

Only **8** different sized rectangles can be made using 34 toothpicks.

20. **Hint:** Use trial and error. Build up the number from left to right. Start with the smallest digits. Check the sum of 18 as you go. Make sure the number ends in an odd digit.

Solution: Start by placing a 1 in the thousands place and a 0 in the hundreds and tens places.

$1 + 0 + 0 = 1$, so there is 17 left for the units digit. (impossible)

Try to place a 7 in the tens place.

$1 + 0 + 7 = 8$, so there is a 10 left for the units digit. (impossible)

Try to place an 8 in the tens place.

$1 + 0 + 8 = 9$, so there is a 9 left for the units digit.

The smallest, odd 4-digit number with digits that add to 18 is **1089**.

21. **Hint:** Draw a diagram.

Solution: There are 5 pieces of information provided.

1) Bree is older than Elie

2) Bree is younger than Chris

younger ⟵———— Elie   Bree   Chris ————⟶ older

3) Abdul is younger than Bree

younger ⟵———— Elie   Abdul   Bree   Chris ————⟶ older

4) Di is younger than Abdul

5) Di is older than Elie

younger ⟵———— Elie   Di   Abdul   Bree   Chris ————⟶ older
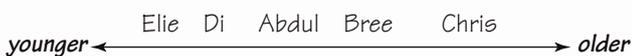
The second oldest person is **Bree**.

19. **Hint:** Note how each picture changes from the last.
Solution:

First eyes appear, then a nose and mouth and finally ears.

The picture that comes next would look like this:

20. **Hint:** Start on a row or column where you have the most numbers. Be systematic. Remember the 2×2 squares too.

Solution: Start with the third column. The only number missing is 3.

In the fourth column 2 and 4 are missing. Because a 4 is already on the second row then this row contains the 2 and the first row must contain the 4.

1		3	4
	4	1	2
		2	3
		4	1

Fill in what you know.

Continue in this way until the table is filled as shown:

1	2	3	4
3	4	1	2
4	1	2	3
2	3	4	1

21. **Hint:** Use trial and error. Work with the lines that have a given number and find the sum of each line.
Solution:
Try 3 in the top middle circle:
$1 + 3 + 9 = 13$
$7 + 5 + 3 = 15$
Swap the positions of 9 and 5.
All different sums, so incorrect.
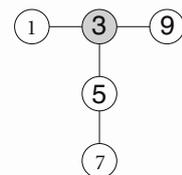
Try 5 in the top middle circle:
$1 + 5 + 9 = 15$
$7 + 3 + 5 = 15$
Same sum, so correct.
Swap the positions of 3 and 9.
Different sums, so incorrect.
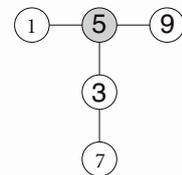
Try 9 in the top middle circle:
$1 + 9 + 5 = 15$
$7 + 3 + 9 = 19$
Swap the positions of 3 and 5.
All different sums, so incorrect.
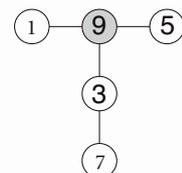
The only possible solution is:

19. **Hint:** Note how each picture changes from the last.

Solution:
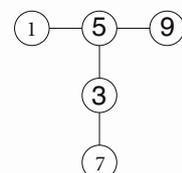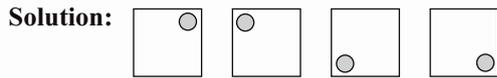
There is a shaded circle in different corners of the squares. The circle is moving in an anticlockwise direction.

The picture that comes next would look like this:

20. **Hint:** Start on a row or column where you have the most numbers. Be systematic. Remember the 2×2 squares too.

Solution: Start with the third row. The only number that can be in the last space is 2 because 1 and 4 are already in the column and 3 is in the row. This leaves only 3 to go at the end of this fourth column. Consider the fourth row. Only the 2 is missing.

Fill in what you know.

Continue in this way until the table is filled as shown:

3	4	2	1
2	1	3	4
4	3	1	2
1	2	4	3

21. **Hint:** Use trial and error. Work with the line that has a given number and find the sum of each line.

Solution:

Try 2 in the middle circle:
$1 + 2 + 5 = 8$
$3 + 2 + 4 = 9$
Swap the positions of 3, 4 and 5.
All different sums, so incorrect.
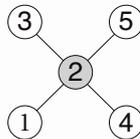
Try 3 in the middle circle:
$1 + 3 + 5 = 9$
$2 + 3 + 4 = 9$
Same sum, so correct.
Swap the positions of 4 and 5 or 2 and 5.
All different sums, so incorrect.
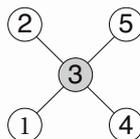
Try 4 in the middle circle:
$1 + 4 + 5 = 10$
$2 + 4 + 3 = 9$
Swap the positions of 2, 3 and 5.
All different sums, so incorrect.
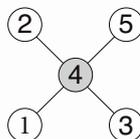
Try 5 in the middle circle:
$1 + 5 + 4 = 10$
$2 + 5 + 3 = 10$
Same sum, so correct.
Swap the positions of 2 and 4 or 3 and 4.
All different sums, so incorrect.
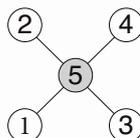
The four possible solutions are:

OR

19. **Hint:** Note how each picture changes from the last.

Solution:
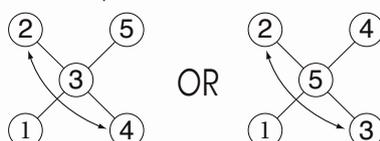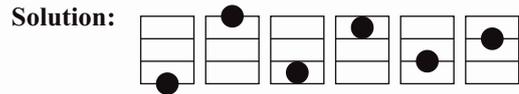
There is a black circle in the middle of the bottom line of the shape. Then the black circle moves to the top line. Next the black circle moves to the bottom space between the lines. Then to the top space between the lines. This zig-zagging movement continues.

The picture that comes next would look like this:

20. **Hint:** Start on a row or column where you have the most numbers. Be systematic. Remember the 2×2 squares too.

Solution: Start with the first column. The only number that can be in the last space is 4 because 2 and 3 are already in the column and 1 is at the far right of the fourth row. This leaves 1 to go in the second space. Then consider the fourth row. Only the 3 is missing.

Fill in what you know.

Continue in this way until the table is filled as shown:

3	2	1	4
1	4	3	2
2	1	4	3
4	3	2	1

21. **Hint:** Use trial and error. Work with the line that has two given numbers first.

Solution:

Ask yourself: Which number added to 2 and 6 makes 13?
$2 + ? + 6 = 13$
$2 + 5 + 6 = 13$
Write in the 5.
If the sum on each line is 13, which two numbers added to 1 make 13?
$1 + 3 + 9 = 13$
$1 + 4 + 8 = 13$
Try these numbers in the lines that include 1.
Similarly find combinations of two digits which, when added to 2, make a sum of 13:
$2 + 3 + 8 = 13$
$2 + 4 + 7 = 13$
Try these numbers in the line that includes 2.
4 is common in both additions so place 4 in the centre circle of the diagram.
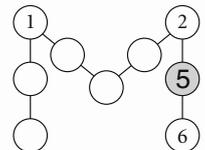
The two possible solutions are:
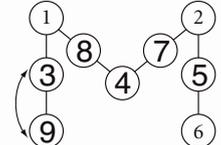
19. **Hint:** Note how each picture changes from the last.
Solution:

In the second picture a ray is withdrawn. In the third picture a second ray is withdrawn. In the fourth picture a third ray is withdrawn. The pattern continues in an anticlockwise direction, around the shape.

The picture that comes next would look like this:

20. **Hint:** Compare the information in a 2 × 2 square to that of a row or column. Be systematic.
Solution: Consider the top left 2 × 2 square. A 4 is needed but it can not be in the second column. So the 4 is under the 2.
The presence of a 3 on this second row means that the 3 for this square must be in the top space.

Fill in what you know.

Continue in this way until the table is filled as shown:

2	3	4	1
4	1	3	2
1	4	2	3
3	2	1	4

21. **Hint:** Use trial and error. Work with the lines that have a given number and find the sum of each line.
**Solution:**
6 and 7 must be added to smaller digits to make the same sums on their lines.
Try to add 1 to the 7 and 2 to the 6.
6 + 2 + ? = ?
7 + 1 + ? = ?
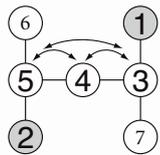
Given that 6 + 2 = 7 + 1, both lines need the same number to make the same sum. (impossible)
Try to add 2 to the 7 and 1 to the 6.
6 + 1 + ? = ?
7 + 2 + ? = ?
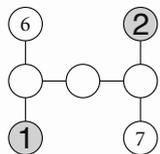
The remaining digits are 3, 4 and 5, and they add to 12.
We can use the 5 on the left to make a sum of 12:
6 + 1 + 5 = 12
and the 3 on the right to make a sum of 12:
7 + 2 + 3 = 12
This leave the 4 in the centre of the diagram.

The only possible solution is:

19. **Hint:** Start on a row or column where you have 2 of the 3 numbers in the addition. Be systematic.
Solution: Start with the <u>first row</u> to be filled.
? + 1 = 4 Fill in 3.
3 + 4 = 7 Fill in 7.

+	1	4	
3	4	7	
2			4
			7

Try the <u>second row</u>.
Again start with what is given.
2 + 1 = 3 Fill in 3.
2 + 4 = 6 Fill in 6.
2 + ? = 4 Fill in 2 at the top.

+	1	4	2
3	4	7	
2	3	6	4
			7

Try the <u>third row</u>.
Again start with what is given.
? + 2 = 7 Fill in 5.
5 + 1 = 6 Fill in 6.
5 + 4 = 9 Fill in 9.

+	1	4	2
3	4	7	
2	3	6	4
5	6	9	7

Continue in this way until the table is filled as shown:

+	1	4	2
3	4	7	5
2	3	6	4
5	6	9	7

20. **Hint:** Multiples of 4 are numbers that you say when you count by 4s from 4.
Solution: When you count by 4s from 4 the missing multiple is
12 + 4 = 16

The multiple of 4 missing from the list of multiples is **16**.

21. **Hint:** Draw an analogue clock. Divide the clock face into thirds.
Solution:
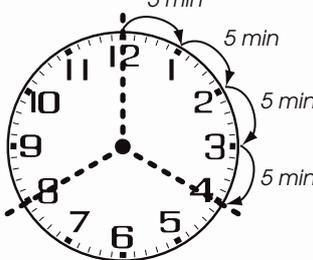
There are 60 minutes marked on a clock face.
There are 5 minutes between two consecutive numbers.
One third of 60 minutes equals:
5 + 5 + 5 + 5 = 20 minutes

Lulu spends **20** minutes eating.

19. **Hint:** Start on a row or column where you have 2 of the 3 numbers in the addition. Be systematic.
Solution: Start with the <u>first row</u> to be filled.
? + 2 = 3 Fill in 1.
1 + 1 = 2 Fill in 2.
1 + ? = 6 Fill in 5 at the top.

+	2	1	**5**
1	3	**2**	6
3			
		5	

Try the <u>second row</u>.
Again start with what is given.
3 + 2 = 5 Fill in 5.
3 + 1 = 4 Fill in 4.
3 + 5 = 8 Fill in 8.

+	2	1	**5**
1	3	**2**	6
3	**5**	**4**	**8**
		5	

Try the <u>third row</u>.
Again start with what is given.
? + 1 = 5 Fill in 4.
4 + 2 = 6 Fill in 6.
4 + 5 = 9 Fill in 9.

+	2	1	**5**
1	3	**2**	6
3	**5**	**4**	**8**
4	**6**	5	**9**

The table is completed.

19. **Hint:** Start on a row or column where you have 2 of the 3 numbers in the addition. Be systematic.
Solution: Start with the <u>first row</u> to be filled.
? + 2 = 3 Fill in 1.
1 + 4 = 5 Fill in 5.
1 + ? = 7 Fill in 6 at the top.

+	2	4	**6**
1	3	**5**	7
			6
3			

Try the <u>second row</u>.
Again start with what is given.
? + 4 = 6 Fill in 2.
2 + 2 = 4 Fill in 4.
2 + 6 = 8 Fill in 8.

+	2	4	**6**
1	3	**5**	7
2	**4**	6	**8**
3			

Try the <u>third row</u>.
Again start with what is given.
3 + 2 = 5 Fill in 5.
3 + 4 = 7 Fill in 7.
3 + 6 = 9 Fill in 9.

+	2	4	**6**
1	3	**5**	7
2	**4**	6	**8**
3	**5**	**7**	**9**

The table is completed.

20. **Hint:** Multiples of 6 are numbers that you say when you count by 6s from 6.
Solution: When you count by 6s from 6 the missing number is
30 + 6 = 36

The multiple of 6 missing from the list of multiples is **36**.

20. **Hint:** A factor of 18 is any whole number that divides exactly into 18.
Solution: Start at 1 and list the numbers that divide exactly into 18.
18 ÷ 1 = 18
18 ÷ 2 = 9
18 ÷ 3 = 6
18 ÷ 4 = not a whole number
18 ÷ 5 = not a whole number
18 ÷ 6 = 3 (starting to repeat)
The factors of 18 are: 1, 2, 3, 6, 9 and 18.

The factor of 18 missing from the list of factors is **6**.

21. **Hint:** Draw 20 biscuits in a packet. Divide the packet of biscuits into tenths.
Solution: How many biscuits in a tenth of a packet?
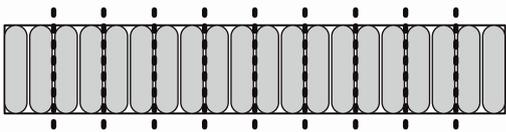
There are 2 biscuits in each tenth.
The plate has three tenths of the biscuits or 3 lots of this.
2 × 3 = 6

There are **6** biscuits on the plate.

21. **Hint:** Draw 25 sweets. Divide the sweets into fifths.
Solution: How many sweets in a fifth?
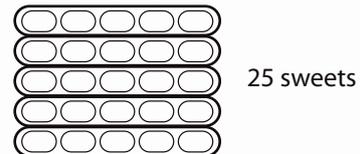
25 sweets

There are 5 sweets in one fifth.
Gina ate two fifths of them or twice as much.
2 × 5 = 10
She bought 25 sweets and ate 10 sweets.
Therefore she has 25 − 10 = 15 sweets left.

Gina has **15** sweets left.

19.   **Hint:** Start on a row or column where you have 2 of the 3 numbers in the addition. Be systematic.
     Solution: Start with the <u>third row</u> to be filled.
     3 + ? = 4 Fill in 1 at the top.
     3 + ? = 5 Fill in 2 at the top.

+	1	2	
	6		8
		6	
3	4	5	

Try the <u>first row</u>.
Use the results from above.
? + 1 = 6 Fill in 5.
5 + 2 = 7 Fill in 7.
5 + ? = 8 Fill in 3 at the top.

+	1	2	3
5	6	7	8
		6	
3	4	5	

Try the <u>second row</u>.
Again start with what is given.
? + 2 = 6 Fill in 4.
4 + 1 = 5 Fill in 5.
4 + 3 = 7 Fill in 7.

+	1	2	3
5	6	7	8
4	5	6	7
3	4	5	

Continue in this way until
the table is filled as shown:

+	1	2	3
5	6	7	8
4	5	6	7
3	4	5	6

20.   **Hint:** A factor of 20 is any whole number that divides exactly into 20.
     Solution: Start at 1 and list the numbers that divide exactly into 20.
     20 ÷ 1 = 20
     20 ÷ 2 = 10
     20 ÷ 3 = not a whole number
     20 ÷ 4 = 5
     20 ÷ 5 = 4 (starting to repeat)
     The factors of 20 are: 1, 2, 4, 5, 10 and 20.

The factor of 20 missing from the list of factors is **10**.

21.   **Hint:** Draw four 10 dollar notes. Divide the notes into quarters.
     Solution: How many 10 dollar notes in one quarter?

adult ticket

There is one 10 dollar note in one quarter.
A child's ticket costs three quarters or three times as much.

child ticket

3 × $10 = $30
The cost of tickets for 2 children is twice as much:
2 × $30 = $60

The cost of tickets for two children is $**60**.

19.   **Hint:** Use trial and error. OR Work backwards and do the opposite operation. Draw a diagram.
     Solution: Try 15 for the starting number.
     Subtract 5:   15 – 5 = 10
     Multiply the result by 4: 10 × 4 = 40 (not 20)

Try 10 for the starting number.
Subtract 5:   10 – 5 = 5
Multiply the result by 4: 5 × 4 = 20 (got 20)

OR The result was 20 so start there.

$$\boxed{} \xrightarrow{-5} \boxed{} \xrightarrow{\times 4} \boxed{20}$$

If at the end you multiplied by 4, then do the opposite and divide by 4.
20 ÷ 4 = 5
Continue in this way. If you subtract 5 then add 5.
5 + 5 = 10
Double check 10 as your result by working forwards.
10 – 5 = 5
5 × 4 = 20 (true)

$$\boxed{10} \xrightarrow{-5} \boxed{5} \xrightarrow{\times 4} \boxed{20}$$
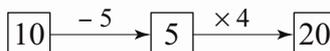
The number is **10**.

20.   **Hint:** Draw a time line.
     Solution:
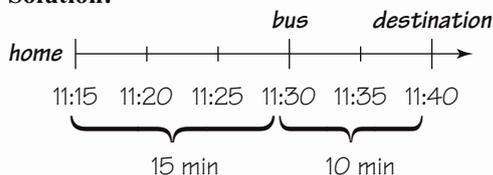
To reach her destination it took Maeve
15 + 10 = 25 minutes

The whole journey was **25** min.

21. **Hint:** If Ada had the same number of fish in each bowl, how many fish would that be? Use trial and error.
OR Draw a diagram.
Solution: If each bowl had the same number of fish then that would be
$12 \div 2 = 6$ fish in each bowl.
BUT the big bowl has twice as many fish as the little bowl.
Try moving 2 fish from the little bowl to the big bowl:
Then the big bowl has $6 + 2 = 8$
And the little bowl has $6 - 2 = \text{④}$
$2 \times 4 = 8$ (correct)

OR We know:
There are 12 fish altogether in the two bowls.
Draw a little bowl and a big bowl.
For each fish you draw in the little bowl, draw two fish in the big bowl.
Keep adding the total number of fish.
Stop when there are 12 fish altogether.
Count the number of fish in the little bowl.

1 fish   +   2 fish   = 3 fish

2 fish   +   4 fish   = 6 fish

3 fish   +   6 fish   = 9 fish

4 fish   +   8 fish   = 12 fish
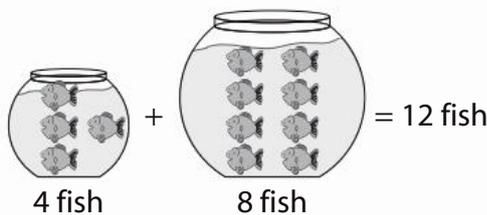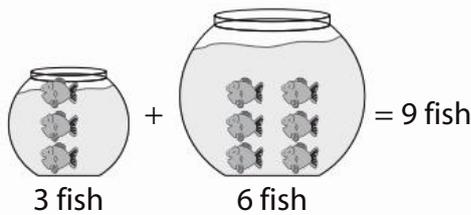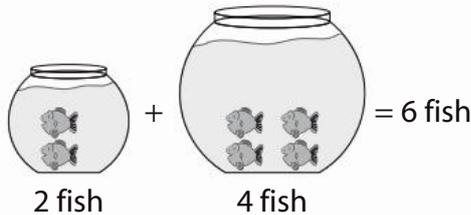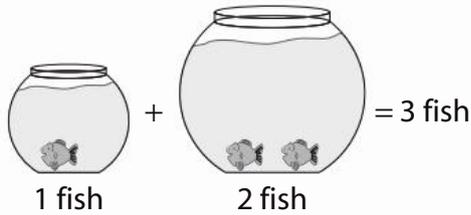
There are **4** fish in the little bowl.

19. **Hint:** Use trial and error. OR Work backwards and do the opposite operation. Draw a diagram.
Solution: Try 10 for the starting number.
Add 12: $10 + 12 = 22$
Divide the result by 6: $22 \div 6 = 3.66...$ (not 4)

Try 12 for the starting number.
Add 12: $12 + 12 = 24$
Divide the result by 6: $24 \div 6 = 4$ (got 4)

OR The result was 4 so start there.

$$\boxed{} \xrightarrow{+\ 12} \boxed{} \xrightarrow{\div\ 6} \boxed{4}$$
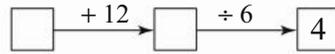
If at the end you divided by 6, then do the opposite and multiply by 6.
$4 \times 6 = 24$
Continue in this way. If you added 12 then subtract 12.
$24 - 12 = 12$
Double check 12 as your result by working forwards.
$12 + 12 = 24$
$24 \div 6 = 4$ (true)

$$\boxed{12} \xrightarrow{+\ 12} \boxed{24} \xrightarrow{\div\ 6} \boxed{4}$$
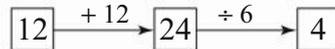
The number is **12**.

20. **Hint:** Draw a time line. OR Add the times together and imagine the movement around a clock face.
Solution:

start   preparation   cooking
11:15 am   11:30   11:45   12:00   12:15   12:30 pm
45 min   20 min
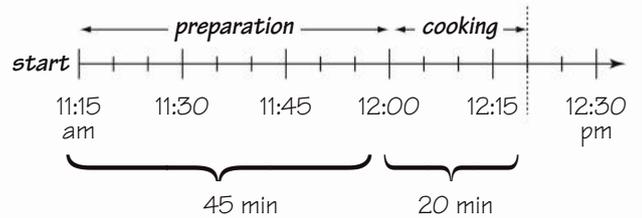
OR $45 + 20 = 65$ minutes
65 minutes = 1 hour + 5 minutes (breaking down)
11:15 am + 1 hour = 12:15 pm
12:15 pm + 5 minutes = 12:20 pm

The biscuits were finished at **12:20 pm**.

21. **Hint:** How many stamps would Michael and Alana have if they had half each? Use trial and error. OR Draw a diagram.

Solution: If they had half each they would have $20 \div 2 = 10$ stamps each.

BUT Michael has 3 times more than Alana.

Try Alana giving Michael 4 stamps:

Then Alana has $10 - 4 = 6$

And Michael has $10 + 4 = 14$

$6 \times 3 \neq 14$ (incorrect)

Try Alana giving Michael 5 stamps:

Then Alana has $10 - 5 = 5$

And Michael has $10 + 5 = 15$

$5 \times 3 = 15$ (correct)

OR We know:

Michael and Alana have 20 stamps in total.

For each stamp you draw for Alana, draw 3 times as many for Michael.

Keep adding the total number of stamps.

Stop when there are 20 stamps in total.
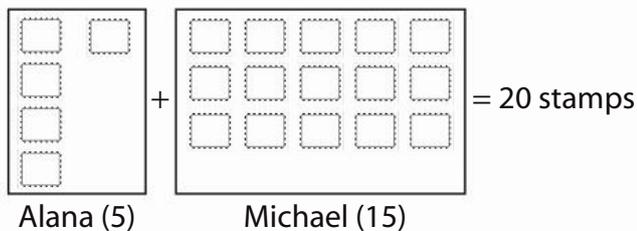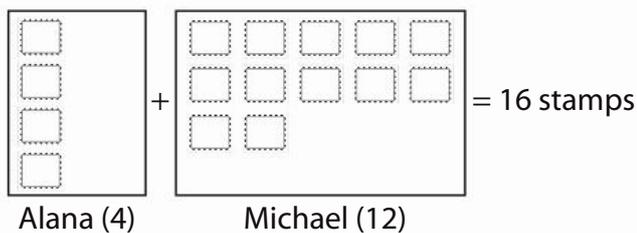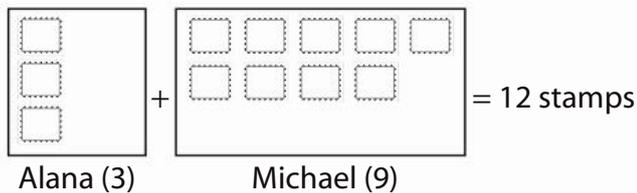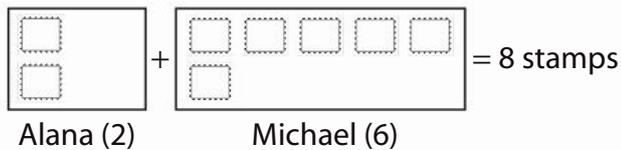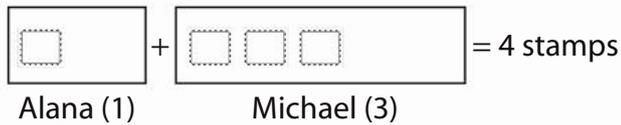
Alana (1)   +   Michael (3)   = 4 stamps

Alana (2)   +   Michael (6)   = 8 stamps

Alana (3)   +   Michael (9)   = 12 stamps

Alana (4)   +   Michael (12)   = 16 stamps

Alana (5)   +   Michael (15)   = 20 stamps

Alana has **5** stamps.

19. **Hint:** Use trial and error. OR Work backwards and do the opposite operation. Draw a diagram.

Solution: Try 10 for the starting number.

Add 15: $10 + 15 = 25$

Divide the result by 3: $25 \div 3 = 8.33...$ (not 10)

Try 15 for the starting number.

Add 15: $15 + 15 = 30$

Divide the result by 3: $30 \div 3 = 10$ (got 10)

OR The result was 10 so start there.

If at the end you divided by 3, then do the opposite and multiply by 3.

$10 \times 3 = 30$

Continue in this way. If you added 15 then subtract 15.

$30 - 15 = 15$

Double check 15 as your result by working forwards.

$15 + 15 = 30$

$30 \div 3 = 10$ (true)
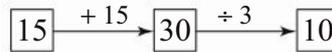
The number is **15**.

20. **Hint:** Draw a time line. Work backwards. OR Subtract the times from 10:30 am and imagine the movement around a clock face.

Solution:
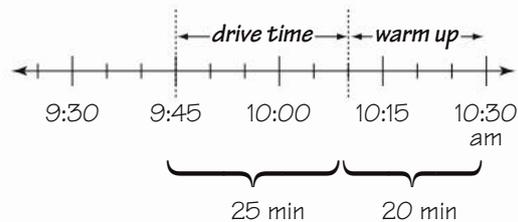
OR $25 + 20 = 45$ minutes

45 minutes = 30 minutes + 15 minutes (breaking down)

10:30 am − 30 min = 10:00 am

10:00 am − 15 min = 9:45 am

Nina should leave home at **9:45 am**.

21. **Hint:** How many of each fruit would Dex buy if he bought half of each? Use trial and error.
OR Draw a diagram.
Solution: If Dex bought half of each kind of fruit he would have
$12 \div 2 = 6$ of each.
BUT there are 4 more apples than bananas.
Try buying 2 more apples and 2 less bananas:
Then apples are $6 + 2 = 8$
And bananas are $6 - 2 = 4$
$8 - 4 = 4$ (correct)

OR We know:
There are 12 pieces of fruit altogether.
For each banana you draw, draw four more apples.
Keep adding the total number of pieces of fruit.
Stop when there are 12 pieces of fruit altogether.

bananas (1)   apples (5)   = 6 pieces

bananas (2)   apples (6)   = 8 pieces

bananas (3)   apples (7)   = 10 pieces

bananas (4)   apples (8)   = 12 pieces
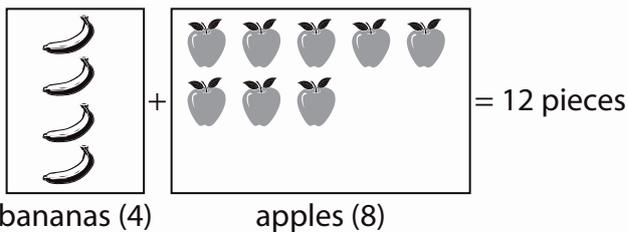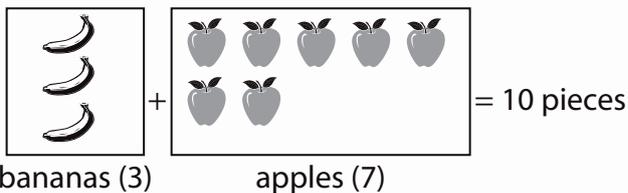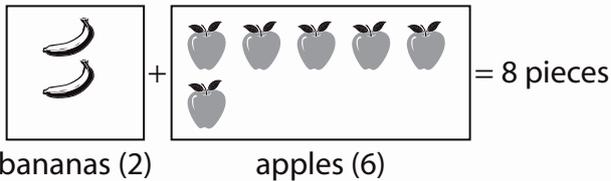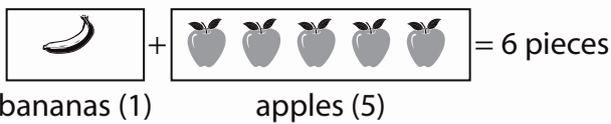
Dex bought **4** bananas.

19. **Hint:** Use trial and error. OR Work backwards and do the opposite operation. Draw a diagram.
Solution: Try 10 for the starting number.
Subtract 6: $10 - 6 = 4$
Multiply the result by 5: $4 \times 5 = 20$ (not 10)

Try 8 for the starting number.
Subtract 6: $8 - 6 = 2$
Multiply the result by 5: $2 \times 5 = 10$ (got 10)

OR The result was 10 so start there.

$$\boxed{} \xrightarrow{-6} \boxed{} \xrightarrow{\times 5} \boxed{10}$$
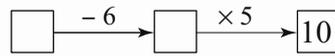
If at the end you multiplied by 5, then do the opposite and divide by 5.
$10 \div 5 = 2$
Continue in this way. If you subtract 6 then add 6.
$2 + 6 = 8$
Double check 8 as your result by working forwards.
$8 - 6 = 2$
$2 \times 5 = 10$ (true)

$$\boxed{8} \xrightarrow{-6} \boxed{2} \xrightarrow{\times 5} \boxed{10}$$
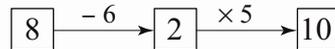
The number is **8**.

20. **Hint:** How many hours in 1 day? How many days in 72 hours?
Solution: 1 day has 24 hours
2 days have $24 + 24 = 48$ hours
3 days have $24 + 48 = 72$ hours
72 hours from midnight is exactly 3 days, so it would be midnight again.

No, it will not be daytime in 72 hours.

21. **Hint:** How much money would Jack and Jill have if they had half each? Use trial and error.
OR Draw a diagram.
Solution: If they had half each they would have
$18 ÷ 2 = $9 each.
BUT Jill has $10 less than Jack.
Try Jill giving Jack $3:
Then Jack has $9 + $3 = $12
And Jill has $9 − $3 = $6
$12 − $6 = $6 (incorrect - the difference is too small)
Try Jill giving Jack $5:
Then Jack has $9 + $5 = $14
And Jill has $9 − $5 = $4
$14 − $4 = $10 (correct)

OR We know:
Jack and Jill have $18 in total.
For each dollar you draw for Jill, draw $10 more for Jack.
Keep adding the total number of dollars.
Stop when there are $18 in total.

Jill ($1)   Jack ($11)   = $12

Jill ($2)   Jack ($12)   = $14

Jill ($3)   Jack ($13)   = $16

Jill ($4)   Jack ($14)   = $18
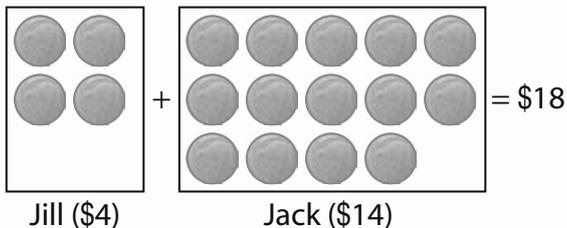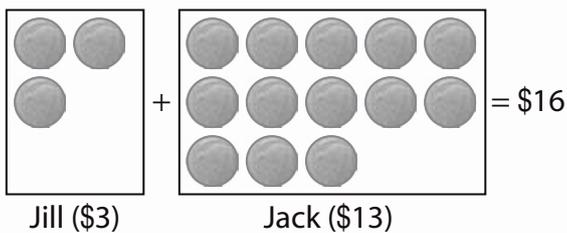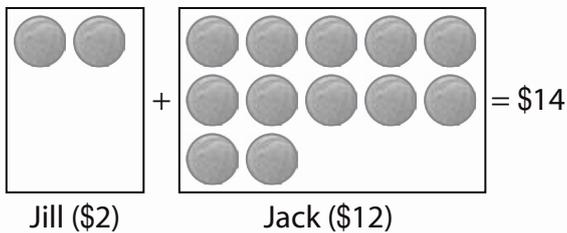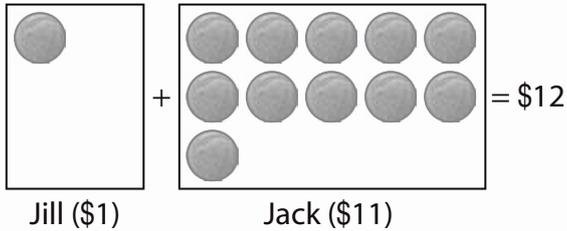
Jill has $**4**.

19. **Hint:** List all the numbers from 30 to 70 that contain the digit 2.
Solution: The 2-digit numbers that contain 2 are:
Starting with 3: 32
Starting with 4: 42
Starting with 5: 52
Starting with 6: 62

When writing all the numbers from 30 to 70, the digit 2 is written **4** times.

20. **Hint:** How much money do they have in total?
How much money would be an equal share?
Solution: Colin and Lachlan had $60 in total.
If they had an equal share of this amount, they would each need half of $60, which is $30.
But Colin had $40, so he gave $10 to Lachlan.
Checking:
$40 − $10 = $30
Lachlan had $20 and received $10 from Colin.
$20 + $10 = $30
They both now have $30 each.

Colin gave $**10** to Lachlan.

21. **Hint:** Find the weight of one half of the watermelon.
Solution: If you took half a watermelon away from both sides of the beam, then the beam would remain balanced.
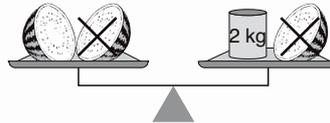
One half of the watermelon weighs 2 kg.
A whole watermelon would weigh twice as much, or
$2 × 2 kg = 4 kg$

The weight of a whole watermelon is **4** kg.

19. **Hint:** List all the numbers from 1 to 50 that contain the digit 3.
Solution: The numbers that contain 3 are:
Between 1 and 10:   3
Between 11 and 20:   13
Between 21 and 30:   23, 30
Between 31 and 40:   31, 32, 33, 34, 35, 36, 37, 38, 39
Between 41 and 50:   43

When writing all the numbers from 1 to 50, the digit 3 is written **15** times.

19. **Hint:** List all the numbers from 40 to 100 that contain the digit 5.
Solution: The numbers that contain 5 are:
Between 40 and 49:   45
Between 50 and 59:   50, 51, 52, 53, 54, 55, 56, 57, 58, 59
Between 60 and 69:   65
Between 70 and 79:   75
Between 80 and 89:   85
Between 90 and 99:   95
The number 100 does not contain digit 5.

When writing all the numbers from 40 to 100, the digit 5 is written **16** times.

20. **Hint:** How much money do they have in total?
How much money would be an equal share?
Solution: Sam and Kate had $32 in total.
If they had an equal share of this amount, they would each need half of $32, which is $16.
But Sam had $21, so she gave $5 to Kate.
Checking:
$21 − $5 = $16
Kate had $11 and received $5 from Sam.
$11 + $5 = $16
They both now have $16 each.

Sam gave $**5** to Kate.

20. **Hint:** How much money do they have in total?
How much money would be an equal share?
Solution: Violet and Finn had $40 in total.
If they had an equal share of this amount, they would each need half of $40, which is $20.
But Finn had $27, so he gave $7 to Violet.
Checking:
$27 − $7 = $20
Violet had $13 and received $7 from Finn.
$13 + $7 = $20
They both now have $20 each.

Finn gave $**7** to Violet.

21. **Hint:** Find the weight of one orange half.
Solution: If you took an orange half away from both sides of the beam, then the beam would remain balanced.
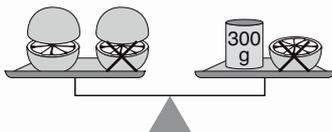
Three orange halves weigh 300 grams.
One orange half would weigh 3 times less than this, or
300 g ÷ 3 = 100 g
A whole orange would weigh twice as much, or
2 × 100 g = 200 g

The weight of a whole orange is **200** g.

21. **Hint:** Consider the second balance beam. Determine how many presents weigh the same as 1 drum.
What happens if you "replace" the drum with presents?
Solution:
On the first balance beam:
If you took 1 present away from both sides of the beam, then the beam would remain balanced.
Therefore 2 presents would weigh the same as 1 drum.

On the second balance beam:
Now we know that 1 drum weighs the same as 2 presents.
If you replace the drum with 2 presents, the beam will remain balanced.

There are now 4 presents on the balance beam, weighing 2 kilograms or 2000 grams.
Therefore 1 present weighs 4 times less than this, or
2000 g ÷ 4 = 500 g

The weight of a present is **500** g.

19. **Hint:** List all the numbers from 10 to 100 that contain the digit 4.
    Solution: The numbers that contain 4 are:
    Between 10 and 19:   14
    Between 20 and 29:   24
    Between 30 and 39:   34
    Between 40 and 49:   40, 41, 42, 43, 44, 45, 46, 47, 48, 49
    Between 50 and 59:   54
    Between 60 and 69:   64
    Between 70 and 79:   74
    Between 80 and 89:   84
    Between 90 and 99:   94
    The number 100 does not contain digit 4.

    When writing all the numbers from 10 to 100, the digit 4 is written **19** times.

20. **Hint:** How much money do they have in total?
    How much money would be an equal share?
    Solution: Alex and Liam had $60 in total.
    If they had an equal share of this amount, they would each need half of $60, which is $30.
    But Liam had $36, so he gave $6 to Alex.
    Checking:
    $36 − $6 = $30
    Alex had $24 and received $6 from Liam.
    $24 + $6 = $30
    They both now have $30 each.

    Liam gave $**6** to Alex.

21. **Hint:** Consider the second balance beam. Determine how many cherries weigh the same as 4 strawberries. What happens if you "replace" the 4 strawberries with cherries?
    Solution:
    On the first balance beam:
    4 cherries weigh the same as 2 strawberries.
    If you double the quantities on both sides of the beam, then the beam will remain balanced.
    Therefore 8 cherries would weigh twice as much, or 4 strawberries.
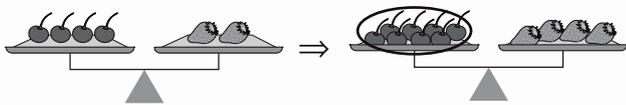
    On the second balance beam:
    Now we know that 4 strawberries weigh the same as 8 cherries.
    If you replace 4 strawberries with 8 cherries, the beam will remain balanced.
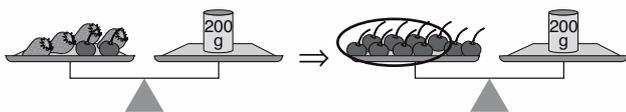
    There are now 10 cherries on the balance beam, weighing 200 grams.
    Therefore 1 cherry weighs 10 times less than this, or 200 g ÷ 10 = 20 g

    The weight of a cherry is **20** g.

MATHS MATE

Teacher Resource

MATHS MATE

RO**S**E · ROSE

Test 1
Covering worksheets 1.1 - 1.4

Name: ....

---

1. [Counting]

Count backwards from 283.

283				

2. [Addition / Subtraction]

Circle the numbers that make 10, then add.

$$8 + 7 + 8 + 3 = \boxed{}$$

3. [Multiplication / Division]
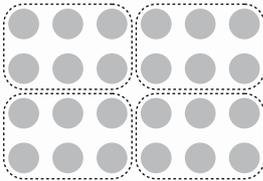
24 divided into 4 groups =

$$24 \div 4 = \boxed{}$$

4. [+ Whole Numbers]

14	7	16	13	5

$+ 7$

5. [− Whole Numbers]

13	26	15	8	12

$- 3$

6. [× Whole Numbers]

7	12	9	3	5

$\times 8$

7. [÷ Whole Numbers]

$$90 \div 10 = \boxed{}$$

8. [Word Problems]

In the 2016 Rio Olympics men's Marathon, 140 men finished the race and 15 did not finish. How many men started the marathon? [Write the number sentence.]

	=

9. [Fractions]

Draw lines to divide the pizza into quarters.
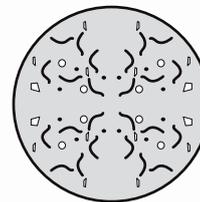
10. [Place Value]

Write the numeral.

Th	H	T	O
Thousands	Hundreds	Tens	Ones

11. [Word Numbers]

Write in numerals:

twenty-one

---

12. [Money]

Which note has the greatest value?

A)

B)

C)

13. [Number Patterns]

1 , 4 , 7 , 10 , 13 , __ , __

14. [Time]

What is the date of the fourth Thursday in October 2021?

OCTOBER - 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

15. [Measuring]

How much longer is the Clarence River than the Rangitata River in New Zealand?

A) Clarence River (North Island) 209 kilometres

B) Rangitata River (South Island) 120 kilometres

km

16. [Shapes]

Circle the rectangular prism.

17. [Location]

Draw a pen inside the briefcase.

18. [Statistics / Probability]

Complete the tally table for the Olympic medals won by the USA:

gold - 9, silver - 8, bronze -6

Winter Olympics - PyeongChang 2018

USA Medals	Tally
gold	JHT IIII
silver	
bronze	

19. [Problem Solving 1]

Which number is halfway between 1 and 19?

20. [Problem Solving 2]

If you continue the pattern, how many matchsticks would be in the sixth figure?
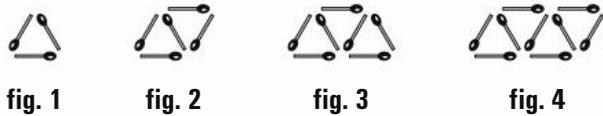
fig. 1   fig. 2   fig. 3   fig. 4

21. [Problem Solving 3]

Last season the Jets won 3 matches and drew 2 matches. How many points did they earn for the season?

soccer matches	points
win	3
draw	1
loss	0

MATHS MATE

1. [Counting]

Count backwards from 262.

262				

2. [Addition / Subtraction]

Circle the numbers that make 10, then add.

$$6 + 9 + 8 + 2 = \boxed{}$$

3. [Multiplication / Division]
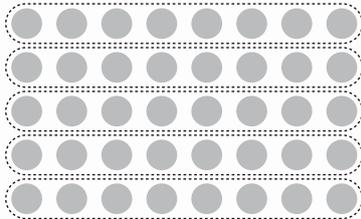
40 divided into 5 groups =

$$40 \div 5 = \boxed{}$$

4. [+ Whole Numbers]

15	8	12	4	17
+ 7				

5. [− Whole Numbers]

10	4	25	7	11
− 3				

6. [× Whole Numbers]

5	11	9	4	6
× 8				

7. [÷ Whole Numbers]

$$40 \div 10 = \boxed{}$$

8. [Word Problems]

In the 2016 Rio Olympics women's Marathon, 133 women finished the race and 24 did not finish. How many women started the marathon?
[Write the number sentence.]

	=	

9. [Fractions]

Draw lines to divide this radioactive symbol into thirds.
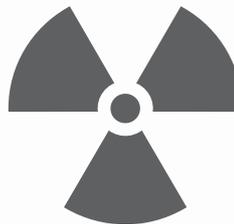
10. [Place Value]

Write the numeral.

Th	H	T	O
Thousands	Hundreds	Tens	Ones

11. [Word Numbers]

Write in numerals:

eighty-seven

12. [Money]

Which note has the least value?

A)

B)

C)

13. [Number Patterns]

5 , 8 , 11 , 14 , 17 , [__ , __]

14. [Time]

What is the date of the fifth Saturday in July 2021?

JULY - 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				Thu 1	Fri 2	Sat 3
Sun 4	Mon 5	Tue 6	Wed 7	Thu 8	Fri 9	Sat 10
Sun 11	Mon 12	Tue 13	Wed 14	Thu 15	Fri 16	Sat 17
Sun 18	Mon 19	Tue 20	Wed 21	Thu 22	Fri 23	Sat 24
Sun 25	Mon 26	Tue 27	Wed 28	Thu 29	Fri 30	Sat 31

15. [Measuring]

How much longer is the Goulburn River than the Campaspe River in Australia?

A) Goulburn River (Vic)
530 kilometres

B) Campaspe River (Vic)
176 kilometres [km]

16. [Shapes]
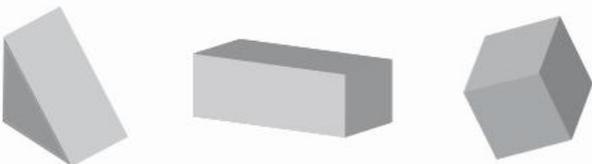
Circle the triangular prism.

17. [Location]

Draw a pair of drumsticks above the drum.
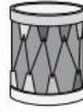
18. [Statistics / Probability]

Complete the tally table for the Olympic medals won by Norway:

gold - 14, silver - 14, bronze - 11

Winter Olympics - PyeongChang 2018

Norway Medals	Tally
gold	ЖҬ ЖҬ IIII
silver	
bronze	

19. [Problem Solving 1]

Which number is halfway between 4 and 20?

20. [Problem Solving 2]

If you continue the pattern, how many matchsticks would be in the fifth figure?
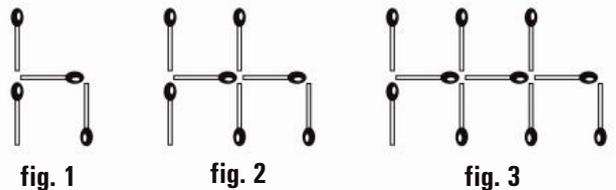
fig. 1   fig. 2   fig. 3

21. [Problem Solving 3]

Mia answered 5 questions correct and had 1 question she did not try. How many points did she score?

quiz answers	points
correct	5
no answer	1
incorrect	0

MATHS MATE

ROSE

Test 2
Covering worksheets 1.5 - 1.8

Name: ....

---

1. [Counting]

   Count by 6s.

   | 6 | 12 | | | | |

2. [Addition / Subtraction]

   Complete the addition.

   plus

   [ ] + [ ] = [ ]
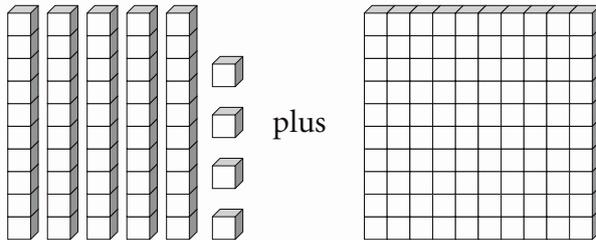
3. [Multiplication / Division]
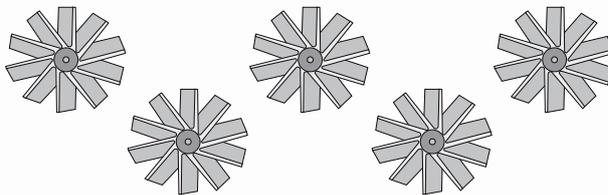
   $10 + 10 + 10 + 10 + 10 =$ [ ]

   $5 \times 10 =$ [ ]

4. [+ Whole Numbers]

   | 13 | 17 | 6 | 8 | 24 |
   | + 8 | | | | |

5. [− Whole Numbers]

   | 15 | 28 | 16 | 9 | 21 |
   | − 6 | | | | |

6. [× Whole Numbers]

   | 3 | 9 | 10 | 2 | 5 |
   | × 5 | | | | |

7. [÷ Whole Numbers]

   $21 \div 3 =$ [ ]

8. [Word Problems]

   Europe has 44 countries and South America has 12 countries (United Nations data). How many more countries are in Europe than in South America?
   [Write the number sentence.]

   [ ] = [ ]

9. [Fractions]

   Write a fraction for the shaded part of the group.

   [ ]
   —
   [ ]
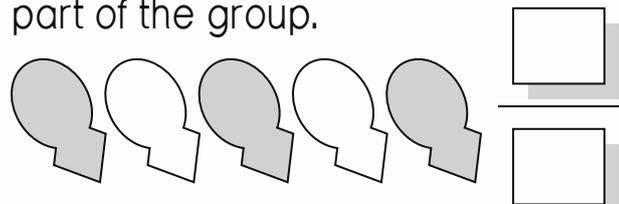
10. [Place Value]

    Expand 4258 by filling in the place value table.

Thousands	Hundreds	Tens	Ones

11. [Word Numbers]

    Write in numerals:

    seven hundred and sixty-three

    [ ]

---

12. [Money]

How much money in total?

$ _____

13. [Number Patterns]

34 , 29 , 24 , 19 , 14 , ___ , ___

14. [Time]

It is July in Melbourne. Which season are we in?

_____

15. [Measuring]

Which object weighs about 1 kilogram?

A) passionfruit
B) orange
C) bunch of celery

_____

16. [Shapes]

Circle the shape that does **not** belong.

17. [Location]

Draw a person in the middle seat.

18. [Statistics / Probability]

Which city is a 20-hour flight from New York?

Flight time: From New York to...

Shanghai	
Invercargill	
Honolulu	
Los Angeles	

each ✈ = 5 hours

_____

19. [Problem Solving 1]
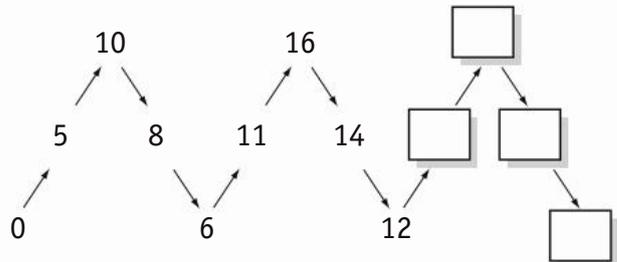
Fill in the missing numbers.

10   16   ___

5   8   11   14   ___   ___

0   6   12   ___

20. [Problem Solving 2]

The complex has only 2-bedroom and 3-bedroom units. There are 5 units in the complex, with a total of 12 bedrooms. How many 3-bedroom units are in the complex?

_____

21. [Problem Solving 3]

Lou made a cube using this net.

Which cube is Lou's?

A)   B)   C)

_____

| 12 | 13 | | 14 | 15 | | 16 | 17 | | 18 | | 19 | 20 | 21 | |

MATHS MATE

R O S E

Test 2
Covering worksheets 1.5 - 1.8

Name: ....

---
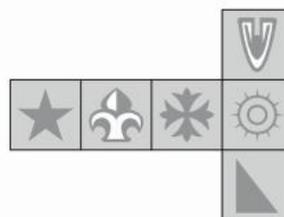
1. [Counting]

Count by 7s.

7	14				

2. [Addition / Subtraction]

Complete the addition.

plus

[ ] + [ ] = [ ]
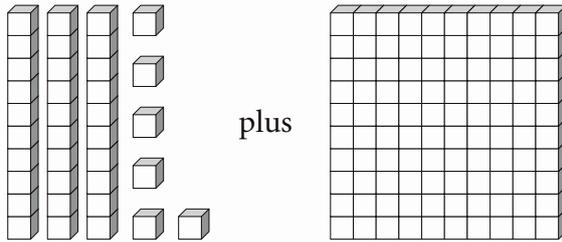
3. [Multiplication / Division]
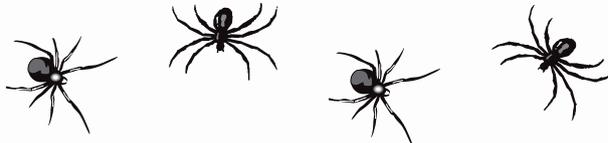
$8 + 8 + 8 + 8 =$ [ ]

$4 \times 8 =$ [ ]

4. [+ Whole Numbers]

7	9	23	12	16
+ 8				

5. [− Whole Numbers]

7	39	13	8	24
− 6				

6. [× Whole Numbers]

6	8	7	1	4
× 5				

7. [÷ Whole Numbers]

$35 \div 7 =$ [ ]

8. [Word Problems]

Oceania has 14 countries and Asia has 48 countries (United Nations data). How many more countries are in Asia than in Oceania? [Write the number sentence.]

[=   ]

9. [Fractions]

Write a fraction for the shaded part of the group.

$\dfrac{\quad}{\quad}$

10. [Place Value]

Expand 6134 by filling in the place value table.

Thousands	Hundreds	Tens	Ones

11. [Word Numbers]

Write in numerals:

five hundred and sixteen

[   ]

---

page 7

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

How much money in total?

$ [____]

13. [Number Patterns]

31 , 26 , 21 , 16 , 11 , [____] , [____]

14. [Time]

It is November in Christchurch. Which season are we in?

[____]

15. [Measuring]

Which object weighs about 1 kilogram?

A) printer
B) dictionary
C) pen

[____]

16. [Shapes]

Circle the shape that does **not** belong.

17. [Location]

Looking at the tray, draw a flower on the stem on the left.
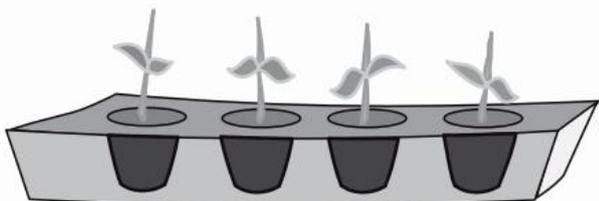
18. [Statistics / Probability]

Which city is a 12-hour flight from London?

Flight time: From London to...

New Delhi	✈ ✈
Adelaide	✈ ✈ ✈ ✈ ✈
Chicago	✈ ✈
Bangkok	✈ ✈ ✈

each ✈ = 4 hours

[____]

19. [Problem Solving 1]
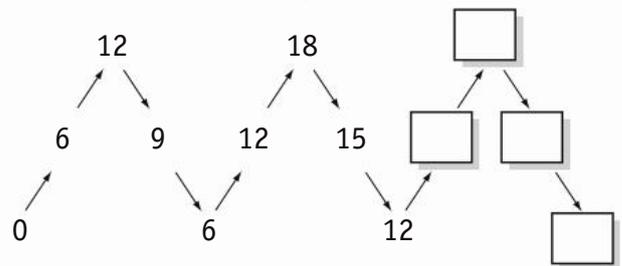
Fill in the missing numbers.

20. [Problem Solving 2]

Grandma has chickens and pigs at the farm. In total they have 14 eyes and 18 legs. How many chickens does grandma have?

[____]

21. [Problem Solving 3]

Di made a pyramid using this net.

Which pyramid is Di's?

A)   B)   C)

[____]

MATHS MATE

ROSE

Test 3
Covering worksheets 2.1 - 2.4
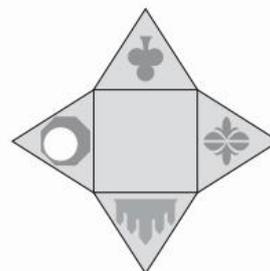
Name: ....

1. [Counting]

Count on by 9s from 27.

27					

2. [Addition / Subtraction]

```
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
```

$31 - 7 = \boxed{}$

3. [Multiplication / Division]

Double this number of pentagons by first drawing them.

$\boxed{} \times \boxed{} = \boxed{}$

4. [+ Whole Numbers]

$35 + 29 = \boxed{}$

5. [− Whole Numbers]

$58 - 23 = \boxed{}$

6. [× Whole Numbers]

3	2	7	9	6

× 7					

7. [÷ Whole Numbers]

32	24	12	20	36

÷ 4				

8. [Word Problems]

If a rugby union team has 15 players on the field, how many players are on the field in a grand final?
[Write the number sentence.]

$\boxed{ = }$

9. [Fractions]

Latika has listened to one quarter of the song. What fraction of the song is left to hear?

$\boxed{\dfrac{}{}}$

10. [Place Value]

Write the value of each digit.

$5822 = \boxed{5000 + + + }$

11. [Word Numbers]

Write the number 568 in words.

1	2	3	4	5	6	7	8	9	10	11

12. [Money]

Circle the exact money needed to buy the toy hammer.

$9.20

13. [Number Patterns]

3 , 7 , 11 , 15 , 19 , ☐ __ , __

14. [Time]

Draw hands on the clock to show twenty-five past three.

15. [Measuring]

A water cooler holds 6000 mL of water. How many litres is this?
[1000 mL = 1 litre]

A) 6000   B) 6
C) 60   D) 600   ☐

16. [Shapes]

Name the two shapes used to make this figure.

and

17. [Location]

Which quarter is to the west of the Muslim Quarter?

Walled City Of
JERUSALEM

WEST BANK

ISRAEL   No Man's Land

Muslim Quarter

Christian Quarter

Mt Moriah

Jewish Quarter

Armenian Quarter

N
W ✦ E
S

0   300 m

18. [Statistics / Probability]

What is the chance ...

"No one in the class has a BBQ next week."

A) certain
B) uncertain   ☐

19. [Problem Solving 1]

25 + 10 is the same as 15 + ☐

20. [Problem Solving 2]

Complete the circles, so that the sum of any three consecutive digits is 10.

① ◯ ④ ◯ ◯ ④ ◯ ◯ ◯

21. [Problem Solving 3]

Out of 2250 people in the stadium, 1000 people arrived by train, 500 people by bus and the rest walked. How many people walked?   ☐

MATHS MATE

ROSE

Test 3
Covering worksheets 2.1 - 2.4

Name: ....

---

1. [Counting]

Count on by 6s from 30.

| 30 | | | | | |

2. [Addition / Subtraction]

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
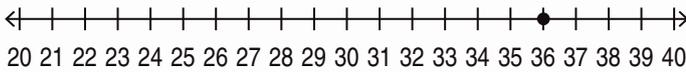
$36 - 7 =$ [ ]

3. [Multiplication / Division]

Double this number of triangles by first drawing them.

[ ] $\times$ [ ] $=$ [ ]

4. [+ Whole Numbers]

$27 + 38 =$ [ ]

5. [− Whole Numbers]

$77 - 23 =$ [ ]

6. [× Whole Numbers]

| 6 | 5 | 3 | 8 | 4 |
| $\times 7$ | | | | |

7. [÷ Whole Numbers]

| 44 | 32 | 28 | 16 | 12 |
| $\div 4$ | | | | |

8. [Word Problems]

There are 4 volleyball teams left in the finals. If each team has 6 players on the court, how many players are on the court in the finals? [Write the number sentence.]

[=   ]

9. [Fractions]

Julian has eaten one third of his orange. What fraction of his orange is left to eat?

[—]

10. [Place Value]

Write the value of each digit.

$6148 =$ [+   + $+ 8$]

11. [Word Numbers]

Write the number 124 in words.

[   ]

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

Circle the exact money needed to buy the kite.

$6.20
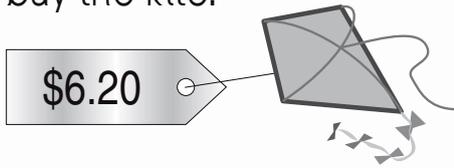
13. [Number Patterns]

6 , 10 , 14 , 18 , 22 , [__ , __]

14. [Time]

Draw hands on the clock to show twenty to seven.

15. [Measuring]

The recommended daily intake of fluids for an average healthy woman is 2000 mL. How many litres is this? [1000 mL = 1 litre]

A)   2000   B)   20
C)   2   D)   200

16. [Shapes]

Name the two shapes used to make this figure.

and

17. [Location]

Which theme park is north of Main Beach?

Gold Coast Theme Parks
Australia
Dreamworld
WHITEWATER WORLD
● Sanctuary Cove
AUSTRALIAN OUTBACK SPECTACULAR
MOVIE WB WORLD
Wet'n Wild
PARADISE COUNTRY
AUSSIE FARM TOUR
Southport ●
SEA WORLD
● Main Beach
N

18. [Statistics / Probability]

What is the chance ...

"If today is Monday tomorrow will be Tuesday."

A)   certain
B)   uncertain

19. [Problem Solving 1]

9 groups of 2 is the same as

6 groups of [ ]

20. [Problem Solving 2]

Complete the circles, so that the sum of any three consecutive digits is 10.

(3) ( ) (2) ( ) ( ) ( ) ( ) (2) ( )

21. [Problem Solving 3]

Cameron read 15 of the 120 pages of his book. How many more pages must he read to reach the middle?

Rose Test 3B © Copyright. Not to be reproduced without permission. J. B. Wright 2020

MATHS MATE
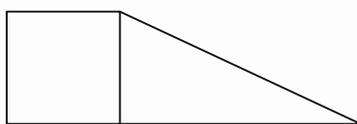
1. [Counting]

Complete the skip counting pattern.

8 12 16 ☐ ☐ 28 32 ☐

2. [Addition / Subtraction]

How much must be added to 3 to make 21?

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

$21 - 3 =$ ☐

3. [Multiplication / Division]

Complete the multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$5 \times 7 =$ ☐

4. [+ Whole Numbers]

$$\begin{array}{r} 1\ 3\ 6 \\ +\ 5\ 7\ 5 \\ \hline \end{array}$$

☐

5. [− Whole Numbers]

$$\begin{array}{r} 3\ 7 \\ -\ 1\ 8 \\ \hline \end{array}$$

☐

6. [× Whole Numbers]

$5 \times 70 =$ ☐

7. [÷ Whole Numbers]

25	10	15	40	35

$\div 5$ | ☐ | ☐ | ☐ | ☐ | ☐ |

8. [Word Problems]

A sulphur-crested cockatoo typically lives for 80 years.
A bear's life span is half of this.
What is a bear's life span?
[Write the number sentence.]

☐ = ☐ years

9. [Fractions]

Show with an arrow $1\frac{1}{2}$ on the number line.

1   2
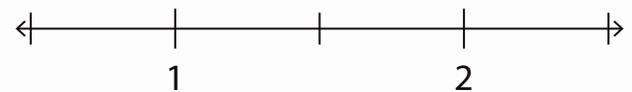
10. [Place Value]

In which number does the digit 2 have greater value?

A) 5621   B) 3284   ☐

11. [Word Numbers]

Write in numerals:

two thousand and eighty-three

☐

12. [Money]

You have $30.50 Which two items can you afford to buy?

A) B) C)

$14.50 $16.50 $15.50

&

13. [Number Patterns]

37 , 31 , 25 , 19 , 13 , __ , __

14. [Time]

Which time is shown on the clock?

A) 8:25
B) 4:40
C) 9:25

15. [Measuring]

What is the volume of the water?

40 mL
30 mL
20 mL
10 mL

mL
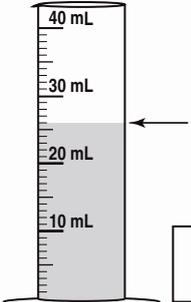
16. [Shapes]

How many sides does a rectangle have?

17. [Location]

Circle the doll which is the same as the one in column 1, row 2.

Row 3

Row 2

Row 1

Column 1   Column 2   Column 3

18. [Statistics / Probability]

Which African nation has about 50 million more people than Kenya?

African Nations - Population

Population (millions)

180 160 140 120 100 80 60 40 20 0

Cameroon Ethiopia Kenya Nigeria Tanzania

19. [Problem Solving 1]

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 22 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

20. [Problem Solving 2]

What is the largest, odd 4-digit number with digits that add to 13?

21. [Problem Solving 3]

Four students ran in a race:

• Pat is behind Daniela
• Daniela is behind Lin

If Carol finished second, who won the race?

MATHS MATE

Test 4
Covering worksheets 2.5 - 2.8

Name: ....

1. [Counting]

Complete the skip counting pattern.

60 70 ☐ 90 ☐ ☐

2. [Addition / Subtraction]

How much must be added to 6 to make 23?

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

$23 - 6 =$ ☐

3. [Multiplication / Division]

Complete the multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$9 \times 6 =$ ☐

4. [+ Whole Numbers]

$$\begin{array}{r} 7\ 3\ 8 \\ +\ 1\ 9\ 4 \\ \hline \end{array}$$

☐

5. [− Whole Numbers]

$$\begin{array}{r} 3\ 3 \\ -\ 1\ 9 \\ \hline \end{array}$$

☐

6. [× Whole Numbers]

$90 \times 3 =$ ☐

7. [÷ Whole Numbers]

50	45	5	20	30

$\div 5$ ☐ ☐ ☐ ☐ ☐

8. [Word Problems]

A blue whale typically lives for 80 years. A grey squirrel's life span is four times less than this. What is a grey squirrel's life span? [Write the number sentence.]

☐ = ☐ years

9. [Fractions]

Show with an arrow $1\frac{1}{3}$ on the number line.

1   2   3
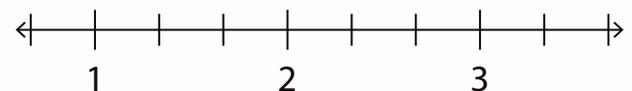
10. [Place Value]

In which number does the digit 9 have greater value?

A) 987   B) 2549

☐

11. [Word Numbers]

Write in numerals:

four thousand and fifty-seven

☐

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

You have $94. Which two items can you afford to buy?

A)   B)   C)

$44.99 $48 $49.95

&

13. [Number Patterns]

38 , 32 , 26 , 20 , 14 , __ , __

14. [Time]

Which time is shown on the clock?

A)   10:20
B)   4:10
C)   3:50

15. [Measuring]

What is the volume of the water?

50 mL
40 mL
30 mL
20 mL
10 mL

mL
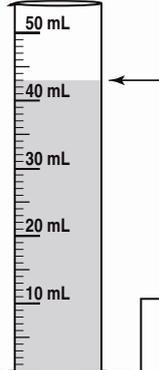
16. [Shapes]

How many vertices does a pentagon have?

17. [Location]

Circle the clown which is the same as the one in column 2, row 3.

Row 3

Row 2

Row 1

Column 1   Column 2   Column 3

18. [Statistics / Probability]

Which continent has 4 million square kilometres less area than Antarctica?

Area of Continents

Africa
Antarctica
Asia
Australia/Oceania
Europe
North America
South America

0   10   20   30   40   50
(million sq km)

19. [Problem Solving 1]

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 18 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

20. [Problem Solving 2]

What is the largest, odd 4-digit number with digits that add to 16?

21. [Problem Solving 3]

Four cars competed in a race:

• Toyota finished ahead of Honda
• Mazda is ahead of Toyota
• Ford is behind Honda

Which car came second?

MATHS MATE

ROSE

Test 5
Covering worksheets 3.1 - 3.4

Name: ....

1. [Counting]

   Is the sum of 16 and 21 an odd or an even number? [ ]

2. [Addition / Subtraction]

   Complete the subtraction.

   [ ] − [ ] = [ ]
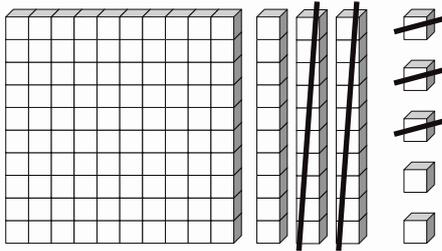
3. [Multiplication / Division]

   Circle to complete the division.
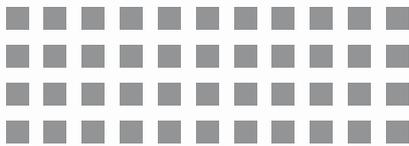
   $44 \div 4 =$ [ ]

4. [+ Whole Numbers]

13	18	4	7	15
+9				

5. [− Whole Numbers]

   $$\begin{array}{r} 5\ 9\ 5 \\ -\ 3\ 6\ 8 \\ \hline \end{array}$$

6. [× Whole Numbers]

   $$\begin{array}{r} 8 \\ \times\ 7 \\ \hline \end{array}$$

7. [÷ Whole Numbers]

24	30	48	12	18
÷6				

8. [Word Problems]

   Jupiter only has 62 moons. The other planets in our solar system have 77 moons in total. How many moons are there altogether in our solar system?
   [Write the number sentence.]

   [=   ]

9. [Fractions]

   Complete the equivalent fractions.

   $\frac{3}{12} = \frac{\boxed{}}{4}$

10. [Place Value]

    Use <, = or > to make this true.

    795 [ ] 7095

11. [Word Numbers]

    Write the number 6095 in words.

    [   ]

12. [Money]

How many 20¢ coins make $3.20?

13. [Number Patterns]

1 , 3 , 7 , 9 , 13 , ___ , ___

14. [Time]

Write the time 'sixteen minutes past one in the morning' in digital form.

:

15. [Measuring]

Find the perimeter of the rectangle.

6 cm

2 cm   2 cm

6 cm

cm

16. [Shapes]

Draw the lines of symmetry.

17. [Location]

You ride along Witt Street towards the church. What is the third street on your right?

Yarrawonga - Victoria

Lake Mulwala
Bank St
Melbourne St
Foreshore
(Frank Kean Reserve)
Hunt St
You are here
Hunt St
Hume St
Lynch St
Haeblich St
Murphy St
Coghill St
Belmore St
Witt St
Kennedy Memorial Park

18. [Statistics / Probability]

Which country won 12 gold medals at the Rio 2016 Olympics?

Rio 2016 Olympics - Gold Medals	
Germany	⬤⬤⬤⬤⬤⬤⬤⬤◗
Brazil	⬤⬤⬤◗
Japan	⬤⬤⬤⬤⬤

Each ⬤ = 2 gold medals   Each ◗ = 1 gold medal

19. [Problem Solving 1]

Draw the picture that comes next in the pattern.

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

3			
	1		
			1
		2	4

21. [Problem Solving 3]

Place the numbers 3, 4, 5 and 6 in the circles, so that the sum on each line is the same.

2

MATHS MATE

R O S E

Test 5
Covering worksheets 3.1 - 3.4

Name: ....

---

1. [Counting]

Is the sum of 23 and 13 an odd or an even number?

[ ]

2. [Addition / Subtraction]

Complete the subtraction.

[ ] − [ ] = [ ]
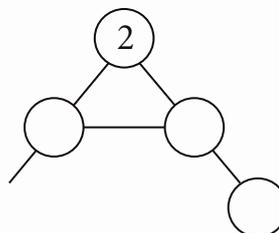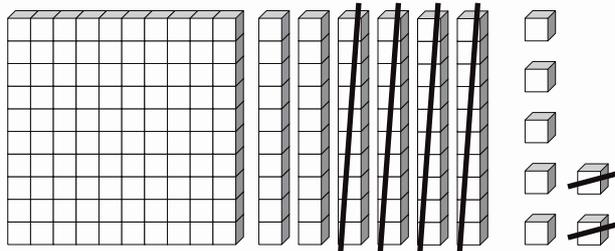
3. [Multiplication / Division]

Circle to complete the division.
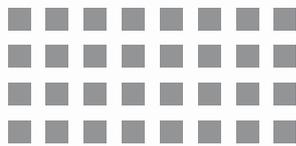
$32 \div 8 =$ [ ]

4. [+ Whole Numbers]

12	15	9	13	6
+9				
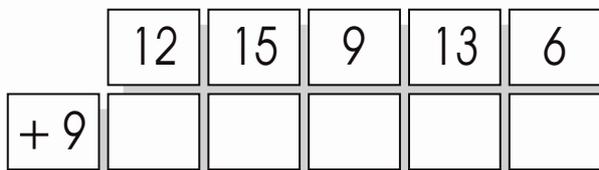
5. [− Whole Numbers]

$$\begin{array}{r} 3\ 5\ 8 \\ -\ 2\ 3\ 9 \\ \hline \end{array}$$

[ ]

6. [× Whole Numbers]

$$\begin{array}{r} 7 \\ \times\ 9 \\ \hline \end{array}$$

[ ]

7. [÷ Whole Numbers]
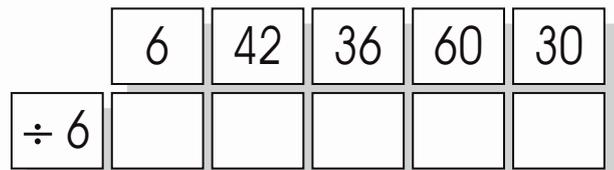
	6	42	36	60	30
÷ 6					

8. [Word Problems]

Brian drove 466 kilometres from Blenheim to Timaru, rested, then drove another 330 kilometres to Queenstown. How far did Brian drive altogether?
[Write the number sentence.]

[= km]

9. [Fractions]

Complete the equivalent fractions.

$$\frac{6}{10} = \frac{\boxed{}}{5}$$

10. [Place Value]

Use <, = or > to make this true.

1842 [ ] 1824

11. [Word Numbers]

Write the number 8042 in words.

[ ]

---

12. [Money]

How many 50¢ coins make $7.50?

13. [Number Patterns]

2 , 4 , 8 , 10 , 14 , ⎢ __ , __

14. [Time]

Write the time 'nineteen minutes past four in the morning' in digital form.

:

15. [Measuring]

Find the perimeter of the rhombus.

40 mm   40 mm

40 mm   40 mm

mm

16. [Shapes]

Draw the lines of symmetry.

17. [Location]

You ride along Gregory St until you get to Parap Rd. How many streets do you pass on your left?

Parap - **Darwin**

Lampe St

East Point Rd

Kellaway St

Knight St

Little St

Macartney St

Macdonald St

Easy St

Parap Rd

You are here

Gregory St

18. [Statistics / Probability]

How many bronze medals did the USA athletics team win at the 2016 Rio de Janeiro Olympics?

2016 Olympics - USA Athletics Team	
Gold	🌕🌕🌕🌕🌕🌕🌗
Silver	🌕🌕🌕🌕🌕
Bronze	🌕🌕🌕🌕🌗

| Each 🌕 = 2 gold medals | Each 🌗 = 1 gold medal |

19. [Problem Solving 1]

Draw the picture that comes next in the pattern.

∗   ∗
         ∗   ∗   ∗   ∗
                  ∗   ∗   ∗
                  ∗

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

1			
	4		2
		3	
			1

21. [Problem Solving 3]

Place the numbers 2, 4, 8 and 10 in the circles, so that the sum on each line is the same.

○

○

6 — ○ — ○

RS ROSE

1. [Counting]

Complete the number line.

7 ☐ 21 28 ☐ ☐ ☐ 56

2. [Addition / Subtraction]

Complete the number sentence.

☐ + ☐ = ☐

3. [Multiplication / Division]

$5 \times 7 = 7 \times$ ☐
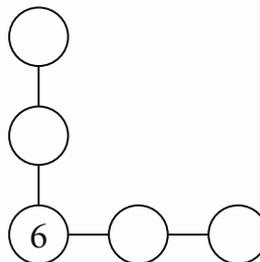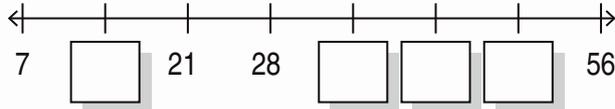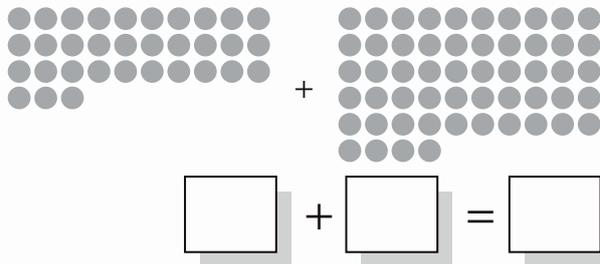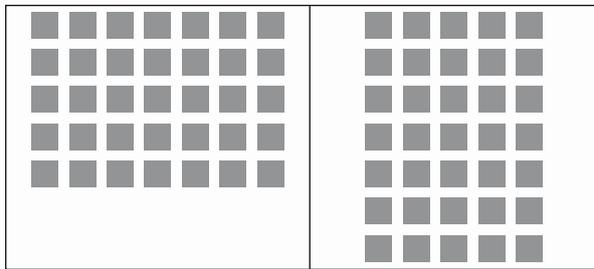
4. [+ Whole Numbers]

☐ $+ 17 = 23$

5. [− Whole Numbers]

14	11	16	23	18

$- 7$

☐ ☐ ☐ ☐ ☐

6. [× Whole Numbers]

```
    2 4
  ×   3
```
☐ ←3×4 units

$+$ ☐ ←3×2 tens

☐

7. [÷ Whole Numbers]

☐

$7 \overline{)\ 2\ 8}$

8. [Word Problems]

Victoria was Queen of the United Kingdom of Great Britain and Ireland between 1837 and 1901. For how many years did she reign? [Write the number sentence.]

☐ = ☐ years

9. [Fractions]

Use <, = or > to make this true.

0   $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ 1

0   $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ 1
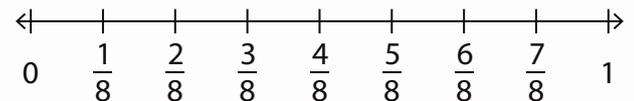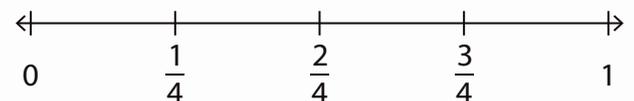
$\frac{3}{4}$ ☐ $\frac{3}{8}$

10. [Place Value]

Using the digits 2, 4, 7 and 9 write a number between 4950 and 5000.

☐

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

11. [Word Numbers]

Write in numerals:

seventy thousand and fourteen

12. [Money]

How much change would you get from $20?

$15.40

$

13. [Number Patterns]

18 , 16 , 13 , 11 , 8 , [__ , __]

14. [Time]

Write the time 4:35 in words.

15. [Measuring]
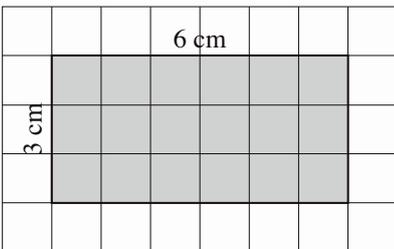
Find the area of the shaded rectangle.

6 cm

3 cm

cm²

16. [Shapes]

The tip tray of which truck shows the greatest angle?

A)   B)

17. [Location]

Draw the reflection of this shape flipped across the dotted line.

18. [Statistics / Probability]

Use the table to complete the graph.

Number of car seats

Car	Number of seats
Ute	2
People Mover	8
Station Wagon	5

Number of seats

8
7
6
5
4
3
2
1
0

Ute   People Mover   Station Wagon

Car type
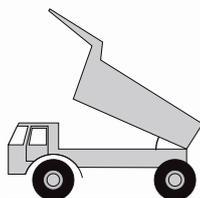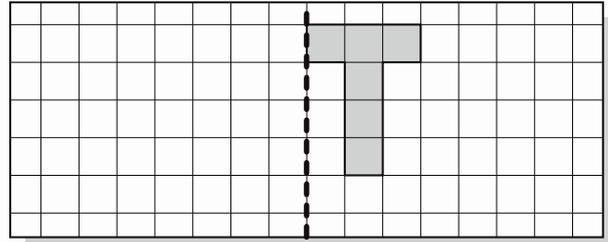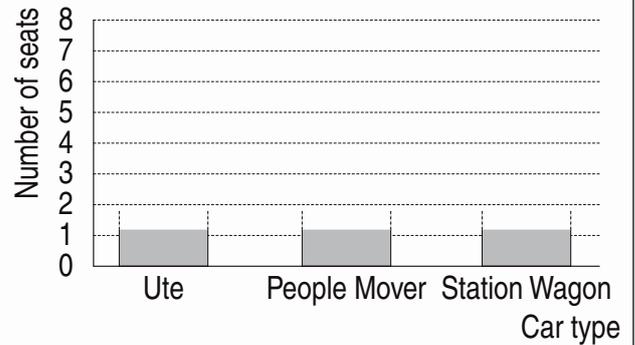
19. [Problem Solving 1]

Complete the addition table.

+	2	4	
4			
	8		12
		12	

20. [Problem Solving 2]

Which factor of 12 is missing from this list of factors?

1, 2, 3, [   ] , 6, 12

21. [Problem Solving 3]

There are 24 nuts in a bowl. Mai ate one quarter of the nuts. How many nuts were left in the bowl?

MATHS MATE

1. [Counting]

Complete the number line.

21   28   35   ☐ ☐ ☐ ☐   70

2. [Addition / Subtraction]

Complete the number sentence.

☐ + ☐ = ☐
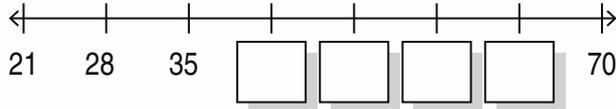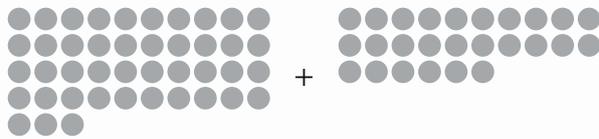
3. [Multiplication / Division]
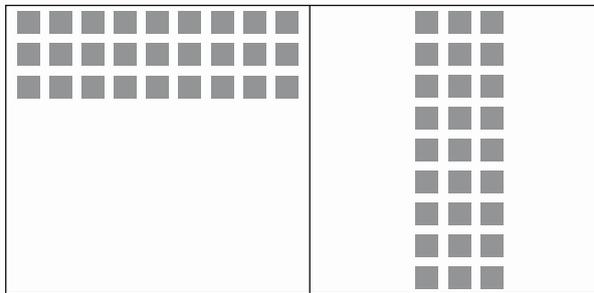
$3 \times 9 = 9 \times$ ☐

4. [+ Whole Numbers]

☐ $+ 16 = 25$

5. [− Whole Numbers]

15	9	21	18	10
− 7				
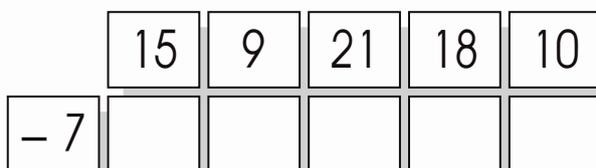
6. [× Whole Numbers]

$$\begin{array}{r} 4\ 2 \\ \times\quad 8 \\ \hline \end{array}$$

☐ ← 8×2 units

+ ☐ ← 8×4 tens

☐

7. [÷ Whole Numbers]

☐

$4 \overline{)\ 2\ 4}$

8. [Word Problems]

Empress Catherine the Great of Russia reigned between 1762 and 1796. For how many years did she reign? [Write the number sentence.]

☐ = ☐ years

9. [Fractions]

Use <, = or > to make this true.

0   $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ 1

0   $\frac{1}{3}$ $\frac{2}{3}$ 1
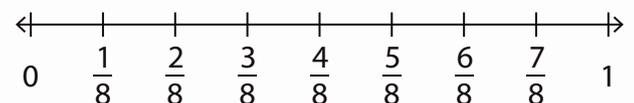
$\frac{1}{8}$ ☐ $\frac{1}{3}$

10. [Place Value]

Using the digits 1, 3, 4 and 7 write a number between 3100 and 3150.   ☐

11. [Word Numbers]

Write in numerals:

eighty thousand and eleven

12. [Money]

How much change would you get from $100?

$79.70

$
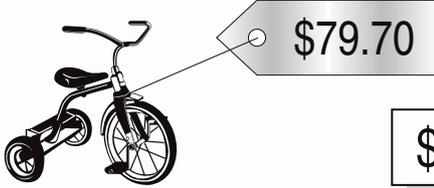
13. [Number Patterns]

16 , 14 , 11 , 9 , 6 , [__ , __]

14. [Time]

Write the time 12:35 in words.

15. [Measuring]

Find the area of the shaded square.

2 cm

2 cm

cm²

16. [Shapes]

The open pages of which book show the greatest angle?

A)   B)

17. [Location]

Draw the reflection of this shape flipped across the dotted line.

18. [Statistics / Probability]

Use the table to complete the graph.

A-League champions: 2014 - 2019

Team	Wins	Team	Wins
Melbourne Victory	2	Sydney FC	2
Brisbane Roar	1	Adelaide United	1

Melbourne Victory

Brisbane Roar

Sydney FC

Adelaid United

0   1   2   3
Number of championships
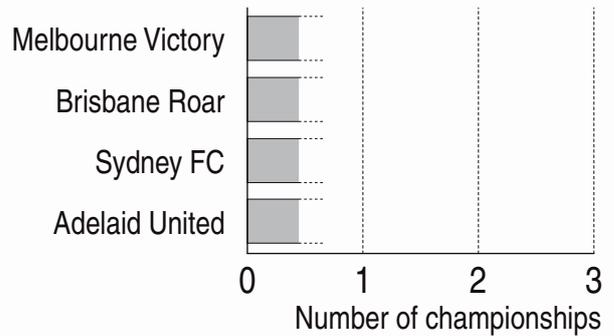
19. [Problem Solving 1]

Complete the addition table.

+		3	5
	3		
4	5		
			11

20. [Problem Solving 2]

Which factor of 16 is missing from this list of factors?

1, 2, 4, [   ] , 16

21. [Problem Solving 3]

Mum cut the cake into 12 equal pieces. My family ate two thirds of the pieces. How many pieces did my family eat?

MATHS MATE

1. [Counting]

Start at 27. Count backward 8.

2. [Addition / Subtraction]

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

$8 + 9 = 17$

$17 - 9 = \boxed{}$
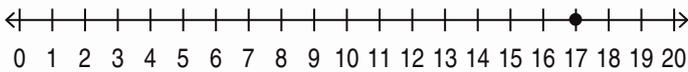
3. [Multiplication / Division]
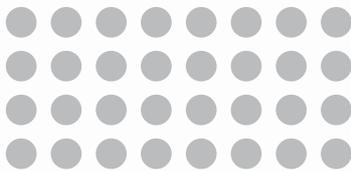
$32 \div 7 = \boxed{}$ remainder $\boxed{}$

4. [+ Whole Numbers]

$$\begin{array}{r} 4\ 1\ 3 \\ 3\ 7 \\ +\ 2\ 4\ 5 \\ \hline \end{array}$$

5. [− Whole Numbers]

$13 - \boxed{} = 8$

6. [× Whole Numbers]

$$\begin{array}{r} 3\ 0\ 2 \\ \times\ \ \ \ 3 \\ \hline \end{array}$$

7. [÷ Whole Numbers]

$\boxed{} \div 8 = 2$

8. [Word Problems]

The brain of an adult Humpback Whale weighs 6 kg. How much would the brains of 3 similar adult Humpback Whales weigh?
[Write the number sentence.]

$\boxed{ = \text{kg}}$

9. [Fractions]

Shade to complete the sum.

$\dfrac{1}{4} + \dfrac{2}{4} = \boxed{-}$

10. [Place Value]

Place in order from largest to smallest:

5723, 2753, 5572, 3725

11. [Word Numbers]

Write the number 60 020 in words.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

What is the total value of:

1 fifty-cent coin,
4 twenty-cent coins and
1 ten-cent coin?

$ ___

13. [Number Patterns]

2 , 4 , 8 , 16 , 32 , ___

14. [Time]

How long should it take to travel between Kings Cross and Bondi Junction stations?

NSW | Transport CityRail

Eastern Line		
Kings Cross	12:52 pm	1:01 pm
Edgecliff	12:54 pm	1:03 pm
Bondi Junction	12:57 pm	1:06 pm

___ minutes

15. [Measuring]
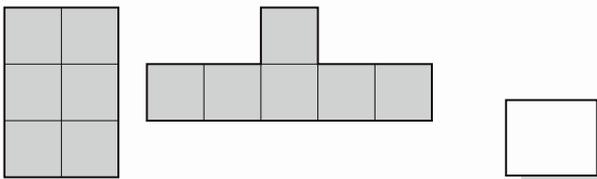
The shapes below have the same:

A) perimeter
B) area
C) perimeter and area

___

16. [Shapes]

Which triangle is an acute-angled triangle?

A)   B)   C)

___

17. [Location]

Which city is located at position E2?

AUSTRALIA

___

18. [Statistics / Probability]

Two jars contain chocolates. A chocolate is chosen from each jar without looking. From which jar is a dark chocolate certain to be chosen?

A)   B)

___

19. [Problem Solving 1]

If you multiply a number by 3 and add 20 to the result, you get 35. What is the number?

___
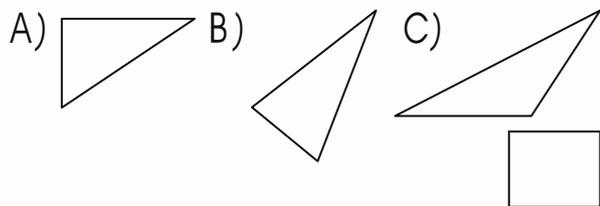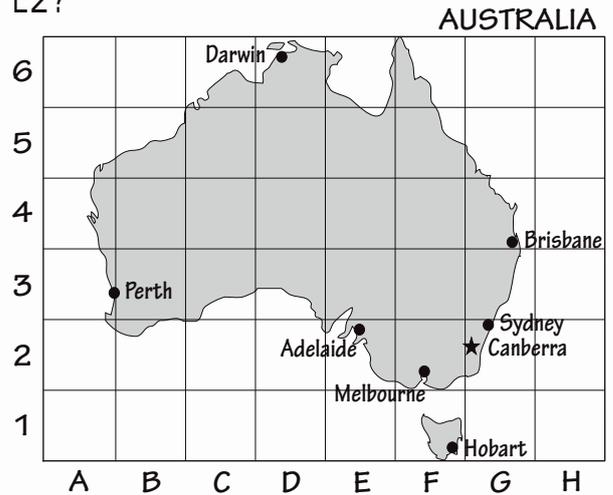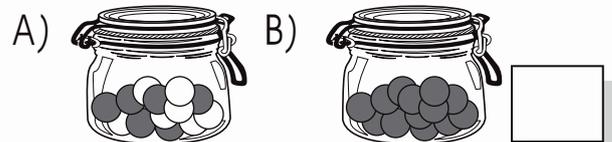
20. [Problem Solving 2]

It is now midnight. Will it be night time in 48 hours?

___

21. [Problem Solving 3]

Adrian and Max have 15 pencils in total. Max has 3 less pencils than Adrian. How many pencils does Max have?

___

MATHS MATE

Test 7
Covering worksheets 4.1 - 4.4

Name: ....

---

1. [Counting]

   Start at 93. Count backward 6.

2. [Addition / Subtraction]
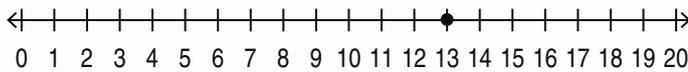
   0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

   $8 + 5 = 13$

   $13 - 8 = \boxed{}$

3. [Multiplication / Division]

   $30 \div 11 = \boxed{}$ remainder $\boxed{}$

4. [+ Whole Numbers]

   $$\begin{array}{r} 5\ 2\ 4 \\ 6\ 8 \\ +\ 3\ 0\ 2 \\ \hline \end{array}$$

5. [− Whole Numbers]

   $16 - \boxed{} = 7$

6. [× Whole Numbers]

   $$\begin{array}{r} 1\ 2\ 2 \\ \times\ \ \ \ 4 \\ \hline \end{array}$$

7. [÷ Whole Numbers]

   $\boxed{} \div 5 = 5$

8. [Word Problems]

   An octopus has 3 hearts. How many hearts would 8 octopuses have?
   [Write the number sentence.]

   $\boxed{ = }$

9. [Fractions]

   Shade to complete the sum.

   $\frac{1}{5} + \frac{2}{5} = \boxed{\dfrac{}{}}$

10. [Place Value]

    Place in order from largest to smallest:

    1849, 1948, 9418, 4914

11. [Word Numbers]

    Write the number 70010 in words.

12. [Money]

What is the total value of:

2 one-dollar coins,
2 twenty-cent coins and
4 ten-cent coins?

$ ____

13. [Number Patterns]

3 , 6 , 12 , 24 , 48 , ____

14. [Time]

How long should it take to travel between Flinders Street and Southern Cross stations?

Glen Waverley Line	Mon to Fri (pm)		
Flinders Street	1:10	1:25	1:40
Southern Cross	1:13	1:28	1:43

____ minutes

15. [Measuring]

The shapes below have the same:

A)   perimeter
B)   area
C)   perimeter and area

____

16. [Shapes]

Which triangle is a right-angled triangle?

A)   B)   C)

____

17. [Location]

Which sea would you be sailing if your boat was located at position F2?

South Pacific

5	INDONESIA		Arafura Sea	PAPUA NEW GUINEA		
4		Timor Sea			Coral Sea	
3	Indian Ocean		AUSTRALIA			
2					Tasman Sea	
1						NEW ZEALAND

A   B   C   D   E   F   G

____

18. [Statistics / Probability]

Two jars contain chocolates. A chocolate is chosen from each jar without looking. From which jar does a white and a dark chocolate have equal chance of being chosen?

A)   B)

____

19. [Problem Solving 1]

If you multiply a number by 4 and add 10 to the result, you get 34. What is the number?

____

20. [Problem Solving 2]

It is now midday. Will it be daytime in 36 hours?

____

21. [Problem Solving 3]

There are 22 students in the class. There are 2 more girls than boys. How many girls are in the class?

____

MATHS MATE

1. [Counting]

Count on by 9s.

| 90 | | | | |

2. [Addition / Subtraction]

Complete the addition.

☐ + ☐ = ☐

3. [Multiplication / Division]

☐ × 7 = 42

7 × 6 = ☐

42 ÷ ☐ = 6

☐ ÷ 6 = 7

4. [+ Whole Numbers]

$$7926$$
$$+1085$$
$$\overline{}$$

5. [– Whole Numbers]

$$501$$
$$-186$$
$$\overline{}$$

6. [× Whole Numbers]

$9 \times 4 \times 5 =$ ☐

7. [÷ Whole Numbers]

$$2\overline{)248}$$

8. [Word Problems]

The cheetah can reach a speed of 120 kilometres per hour. The elephant can reach a speed 3 times less than this. What speed can an elephant reach? [Write the number sentence.]

☐ = ☐ km/h

9. [Fractions]

$\dfrac{6}{8} - \dfrac{3}{8} =$ ☐

10. [Place Value]

Round 1406 to the nearest hundred.

☐

11. [Word Numbers]

Write in numerals:

three hundred and seventy thousand

☐

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

Calculate the total cost of:

nail polish remover at $8.75

nail polish at $6.00

a nail file at $1.00

$ [ ]

13. [Number Patterns]

8 , 40 , 200 , 1000 , [ ]

14. [Time]

Write in hours.

120 minutes = [hours]

15. [Measuring]
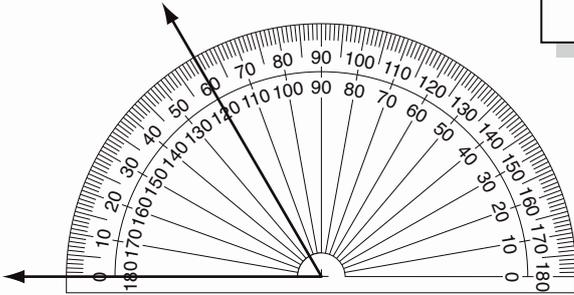
Use the protractor to measure the size of this angle.

[ ]

16. [Shapes]

This triangle has: △

A) two perpendicular sides

B) all sides of equal length

C) no line of symmetry

D) two parallel sides

[ ]

17. [Location]

In which position is Babbage?

A) A2   B) C1   C) C3   D) B3

18. [Statistics / Probability]
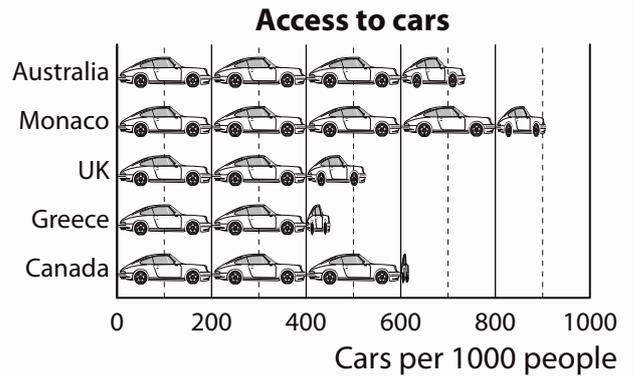
Which country has closest to 600 cars for every 1000 people?

Access to cars

Cars per 1000 people

[ ]

19. [Problem Solving 1]

How many times do you write the digit 6 when writing all the numbers from 10 to 70?

[ ]

20. [Problem Solving 2]

Trish had $32. Don had $16. How much did Trish give Don if they now have the same amount?

$ [ ]

21. [Problem Solving 3]

Find the weight of a tomato.

g [ ]

MATHS MATE

Test 8
Covering worksheets 4.5 - 4.8
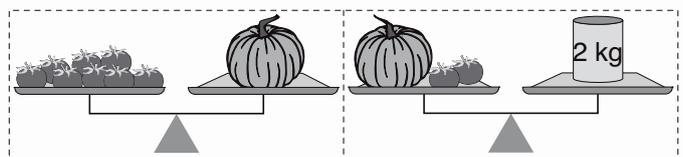
Name: ....

1. [Counting]

Count on by 9s.

| 108 | | | | |

2. [Addition / Subtraction]

Complete the addition.

[ ] + [ ] = [ ]
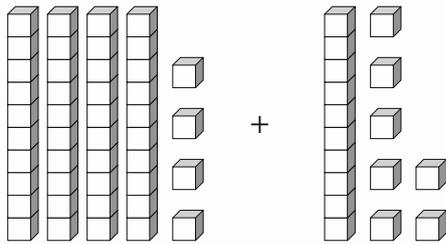
3. [Multiplication / Division]

$6 \times$ [ ] $= 60$

[ ] $\times 6 = 60$

[ ] $\div 10 = 6$

$60 \div$ [ ] $= 10$

4. [+ Whole Numbers]

```
  5 4 3 7
+ 3 6 9 5
_____
```

5. [− Whole Numbers]

```
  6 0 7
− 4 3 9
_____
```

6. [× Whole Numbers]

$2 \times 8 \times 4 =$ [ ]

7. [÷ Whole Numbers]

$3 \overline{)6\ 3\ 9}$

8. [Word Problems]

The pronghorn antelope can reach a speed of 96 kilometres per hour. The grizzly bear can reach a speed 2 times less than this. What speed can a grizzly bear reach?
[Write the number sentence.]

[= km/h]

9. [Fractions]

$\dfrac{9}{10} - \dfrac{7}{10} =$ [—]

10. [Place Value]

Round 3280 to the nearest hundred.

[ ]

11. [Word Numbers]

Write in numerals:

eight hundred and ten thousand

[ ]

page 31

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

Calculate the total cost of:

ice cream at $5.75
cones at $3.00
topping at $3.25

$ _____

13. [Number Patterns]

4 , 20 , 100 , 500 , _____

14. [Time]

Write in days.

48 hours = _____ days

15. [Measuring]

Use the protractor to measure the size of this angle.

_____

16. [Shapes]

This trapezium has: _____

A)   two perpendicular sides
B)   all sides of equal length
C)   one line of symmetry
D)   two parallel sides

_____

17. [Location]

In which position is Cleopatra?

A) A1   B) C2   C) C3   D) B2

	A	B	C
3	Bach	Columbus	Cleopatra
2	Freud	Queen Victoria	Kipling
1	Marx	H. G. Wells	Braille

_____

18. [Statistics / Probability]

For how many years was the Nobel Prize for literature **not** awarded?

Nobel prizes NOT awarded
(1901 - 2018)

Physics
Chemistry
Medicine
Literature
Peace
Economics

0 2 4 6 8 10 12 14 16 18 20
years

_____ years

19. [Problem Solving 1]

How many times do you write the digit 1 when writing all the numbers from 1 to 50?

_____

20. [Problem Solving 2]

Daniel had $25. Paul had $65. How much did Paul give Daniel if they now have the same amount?

$ _____

21. [Problem Solving 3]

Find the weight of an apple.

1 kg

_____ g

MATHS MATE

Teacher Resource

MATHS MATE

Test 1
Covering worksheets 1.1 - 1.4

Name: ....

1. [Counting]

Count backwards from 283.

| 283 | 282 | 281 | 280 | 279 |

2. [Addition / Subtraction]

Circle the numbers that make 10, then add.

$8 + ⑦ + 8 + ③ = \boxed{26}$

3. [Multiplication / Division]
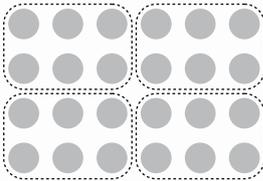
24 divided into 4 groups =

$24 ÷ 4 = \boxed{6}$

4. [+ Whole Numbers]

	14	7	16	13	5
+ 7	21	14	23	20	12

5. [– Whole Numbers]

	13	26	15	8	12
– 3	10	23	12	5	9

6. [× Whole Numbers]

	7	12	9	3	5
× 8	56	96	72	24	40

7. [÷ Whole Numbers]

$90 ÷ 10 = \boxed{9}$

8. [Word Problems]

In the 2016 Rio Olympics men's Marathon, 140 men finished the race and 15 did not finish. How many men started the marathon?
[Write the number sentence.]

$$140 + 15 = 155$$

9. [Fractions]

Draw lines to divide the pizza into quarters.

10. [Place Value]

Write the numeral.

Th   H   T   O
Thousands Hundreds Tens Ones

$\boxed{3204}$
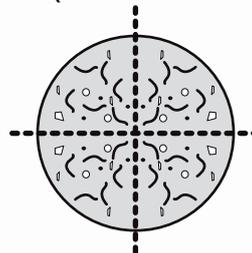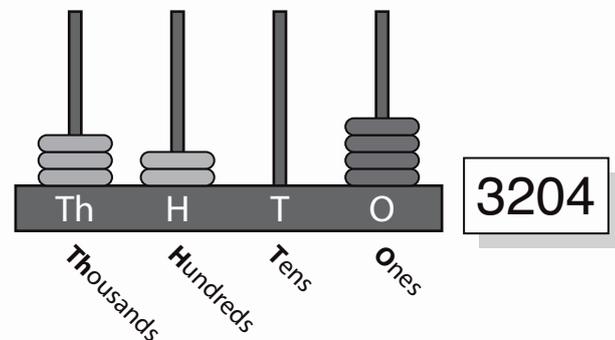
11. [Word Numbers]

Write in numerals:

twenty-one $\boxed{21}$

12. [Money]

Which note has the greatest value?

A)

B)

C)

B

13. [Number Patterns]

1 , 4 , 7 , 10 , 13 , **16 , 19**

14. [Time]

What is the date of the fourth Thursday in October 2021?

OCTOBER - 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Sun	Mon	Tue	Wed	Thu	Fri 1	Sat 2
Sun 3	Mon 4	Tue 5	Wed 6	Thu 7	Fri 8	Sat 9
Sun 10	Mon 11	Tue 12	Wed 13	Thu 14	Fri 15	Sat 16
Sun 17	Mon 18	Tue 19	Wed 20	Thu 21	Fri 22	Sat 23
Sun 24	Mon 25	Tue 26	Wed 27	Thu 28	Fri 29	Sat 30
Sun 31	Mon	Tue	Wed	Thu	Fri	Sat

28 October 2021

OR 28/10/2021

15. [Measuring]

How much longer is the Clarence River than the Rangitata River in New Zealand?

A) Clarence River (North Island)
   209 kilometres

B) Rangitata River (South Island)
   120 kilometres

89 km

16. [Shapes]

Circle the rectangular prism.
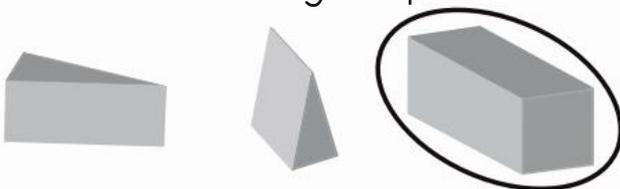
17. [Location]

Draw a pen inside the briefcase.

18. [Statistics / Probability]

Complete the tally table for the Olympic medals won by the USA:

gold - 9, silver - 8, bronze -6

Winter Olympics - PyeongChang 2018

USA Medals	Tally
gold	JHT IIII
silver	JHT III
bronze	JHT I

19. [Problem Solving 1]

Which number is halfway between 1 and 19?

10

20. [Problem Solving 2]

If you continue the pattern, how many matchsticks would be in the sixth figure?

fig. 1   fig. 2   fig. 3   fig. 4

13

21. [Problem Solving 3]

Last season the Jets won 3 matches and drew 2 matches. How many points did they earn for the season?

soccer matches	points
win	3
draw	1
loss	0

11

MATHS MATE

1. [Counting]

   Count backwards from 262.

   | 262 | 261 | 260 | 259 | 258 |

2. [Addition / Subtraction]

   Circle the numbers that make 10, then add.

   $6 + 9 + \boxed{8} + \boxed{2} = 25$

3. [Multiplication / Division]
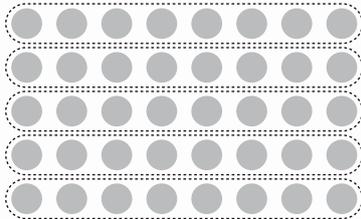
   40 divided into 5 groups =

   $40 \div 5 = \boxed{8}$

4. [+ Whole Numbers]

15	8	12	4	17
+ 7				
22	15	19	11	24

5. [− Whole Numbers]

10	4	25	7	11
− 3				
7	1	22	4	8

6. [× Whole Numbers]

5	11	9	4	6
× 8				
40	88	72	32	48

7. [÷ Whole Numbers]

   $40 \div 10 = \boxed{4}$

8. [Word Problems]

   In the 2016 Rio Olympics women's Marathon, 133 women finished the race and 24 did not finish. How many women started the marathon?
   [Write the number sentence.]

   $$133 + 24 = 157$$

9. [Fractions]

   Draw lines to divide this radioactive symbol into thirds.
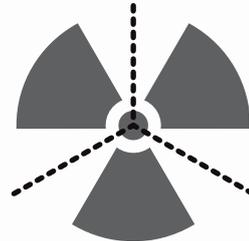
   OR similar

10. [Place Value]

    Write the numeral.

    Th H T O

    Thousands Hundreds Tens Ones

    4025
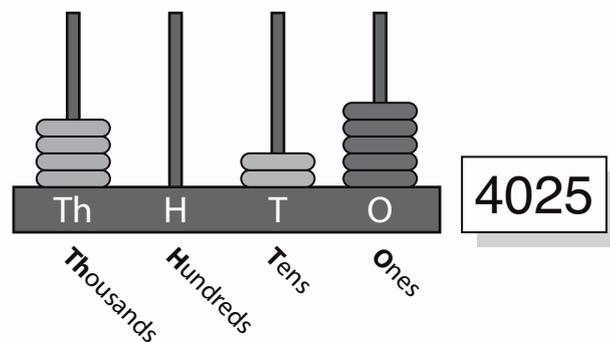
11. [Word Numbers]

    Write in numerals:

    eighty-seven   87

12. [Money]

Which note has the least value?

A)

B)

C)

$\boxed{C}$

13. [Number Patterns]

5 , 8 , 11 , 14 , 17 , $\boxed{\underline{20},\underline{23}}$

14. [Time]

What is the date of the fifth Saturday in July 2021?

JULY - 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				Thu 1	Fri 2	Sat 3
Sun 4	Mon 5	Tue 6	Wed 7	Thu 8	Fri 9	Sat 10
Sun 11	Mon 12	Tue 13	Wed 14	Thu 15	Fri 16	Sat 17
Sun 18	Mon 19	Tue 20	Wed 21	Thu 22	Fri 23	Sat 24
Sun 25	Mon 26	Tue 27	Wed 28	Thu 29	Fri 30	Sat 31

$\boxed{\text{31 July 2021}}$

OR 31/7/2021

15. [Measuring]

How much longer is the Goulburn River than the Campaspe River in Australia?

A)   Goulburn River (Vic)
     530 kilometres

B)   Campaspe River (Vic)
     176 kilometres

$\boxed{254 \text{ km}}$

16. [Shapes]

Circle the triangular prism.
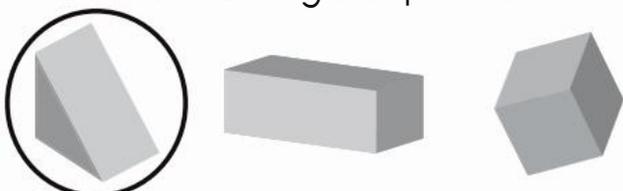
17. [Location]

Draw a pair of drumsticks above the drum.

18. [Statistics / Probability]

Complete the tally table for the Olympic medals won by Norway:

gold - 14, silver - 14, bronze - 11

Winter Olympics - PyeongChang 2018

Norway Medals	Tally
gold	~~IIII~~ ~~IIII~~ IIII
silver	~~IIII~~ ~~IIII~~ IIII
bronze	~~IIII~~ ~~IIII~~ I

19. [Problem Solving 1]

Which number is halfway between 4 and 20? $\boxed{12}$

20. [Problem Solving 2]

If you continue the pattern, how many matchsticks would be in the fifth figure?

fig. 1   fig. 2   fig. 3

$\boxed{16}$

21. [Problem Solving 3]

Mia answered 5 questions correct and had 1 question she did not try. How many points did she score?

quiz answers	points
correct	5
no answer	1
incorrect	0

$\boxed{26}$

MATHS MATE

ROSE

Test 2
Covering worksheets 1.5 - 1.8

Name: ....

---
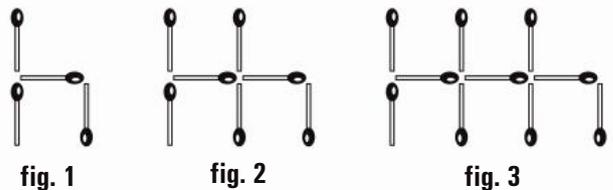
1. [Counting]

Count by 6s.

| 6 | 12 | 18 | 24 | 30 | 36 |

2. [Addition / Subtraction]

Complete the addition.

plus
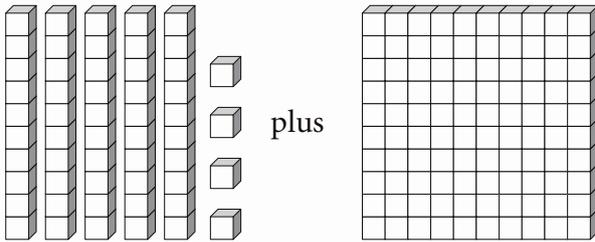
54 + 100 = 154

3. [Multiplication / Division]
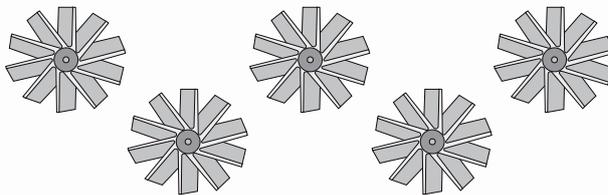
$$10 + 10 + 10 + 10 + 10 = 50$$

$$5 \times 10 = 50$$

4. [+ Whole Numbers]

| 13 | 17 | 6 | 8 | 24 |
| + 8 | 21 | 25 | 14 | 16 | 32 |

5. [− Whole Numbers]

| 15 | 28 | 16 | 9 | 21 |
| − 6 | 9 | 22 | 10 | 3 | 15 |

6. [× Whole Numbers]

| 3 | 9 | 10 | 2 | 5 |
| × 5 | 15 | 45 | 50 | 10 | 25 |

7. [÷ Whole Numbers]

$21 \div 3 =$ 7

8. [Word Problems]

Europe has 44 countries and South America has 12 countries (United Nations data). How many more countries are in Europe than in South America?
[Write the number sentence.]

$$44 - 12 = 32$$

9. [Fractions]

Write a fraction for the shaded part of the group.
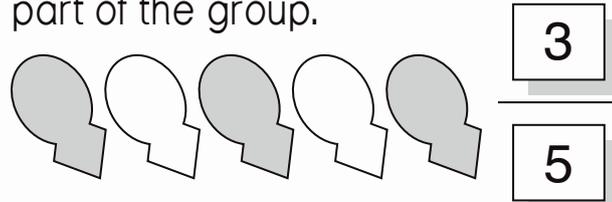
$$\frac{3}{5}$$

10. [Place Value]

Expand 4258 by filling in the place value table.

Thousands	Hundreds	Tens	Ones
4	2	5	8

11. [Word Numbers]

Write in numerals:

seven hundred and sixty-three

763

---

12. [Money]

How much money in total?

$51.30

13. [Number Patterns]

34 , 29 , 24 , 19 , 14 , 9 , 4

14. [Time]

It is July in Melbourne. Which season are we in?

winter

15. [Measuring]

Which object weighs about 1 kilogram?

A) passionfruit
B) orange
C) bunch of celery

C

16. [Shapes]

Circle the shape that does **not** belong.
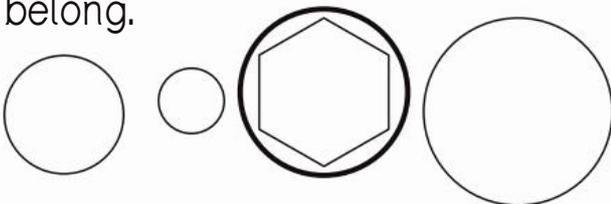
17. [Location]

Draw a person in the middle seat.

18. [Statistics / Probability]

Which city is a 20-hour flight from New York?

Flight time: From New York to...

Shanghai	✈ ✈ ✈
Invercargill	✈ ✈ ✈ ✈
Honolulu	✈ ✈
Los Angeles	✈

each ✈ = 5 hours

Invercargill

19. [Problem Solving 1]
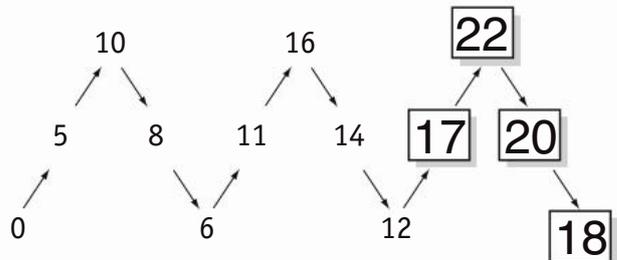
Fill in the missing numbers.

10   16   **22**

5   8   11   14   **17** **20**

0   6   12   **18**

20. [Problem Solving 2]

The complex has only 2-bedroom and 3-bedroom units. There are 5 units in the complex, with a total of 12 bedrooms. How many 3-bedroom units are in the complex?

2

21. [Problem Solving 3]

Lou made a cube using this net.

Which cube is Lou's?

A)   B)   C)

C

MATHS MATE

ROSE

Test 2
Covering worksheets 1.5 - 1.8

Name: ....

---
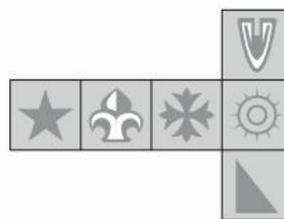
1. [Counting]

Count by 7s.

7	14	21	28	35	42

2. [Addition / Subtraction]

Complete the addition.

plus
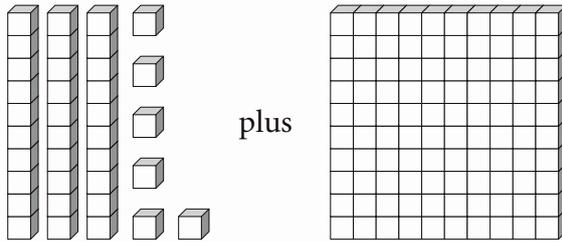
$$36 + 100 = 136$$

3. [Multiplication / Division]

$$8 + 8 + 8 + 8 = \boxed{32}$$

$$4 \times 8 = \boxed{32}$$

4. [+ Whole Numbers]

7	9	23	12	16
+ 8	15	17	31	20	24

5. [− Whole Numbers]

7	39	13	8	24
− 6	1	33	7	2	18

6. [× Whole Numbers]

6	8	7	1	4
×5	30	40	35	5	20

7. [÷ Whole Numbers]

$$35 \div 7 = \boxed{5}$$

8. [Word Problems]

Oceania has 14 countries and Asia has 48 countries (United Nations data). How many more countries are in Asia than in Oceania? [Write the number sentence.]

$$48 - 14 = 34$$

9. [Fractions]

Write a fraction for the shaded part of the group.

$$\dfrac{5}{7}$$

10. [Place Value]

Expand 6134 by filling in the place value table.

Thousands	Hundreds	Tens	Ones
6	1	3	4

11. [Word Numbers]

Write in numerals:

five hundred and sixteen

516

---

12. [Money]

How much money in total?

$$ \$\,102.10 $$

13. [Number Patterns]

31 , 26 , 21 , 16 , 11 , 6 , 1

14. [Time]

It is November in Christchurch. Which season are we in?

spring

15. [Measuring]

Which object weighs about 1 kilogram?

A) printer
B) dictionary
C) pen

B

16. [Shapes]

Circle the shape that does **not** belong.
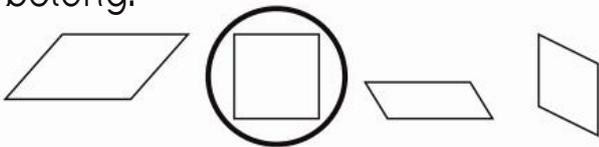
17. [Location]

Looking at the tray, draw a flower on the stem on the left.
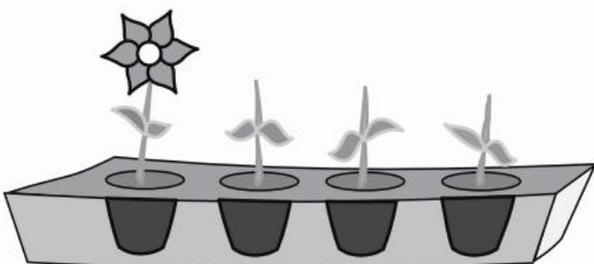
18. [Statistics / Probability]

Which city is a 12-hour flight from London?

Flight time: From London to...

New Delhi	✈✈
Adelaide	✈✈✈✈✈
Chicago	✈✈
Bangkok	✈✈✈

each ✈ = 4 hours

Bangkok

19. [Problem Solving 1]
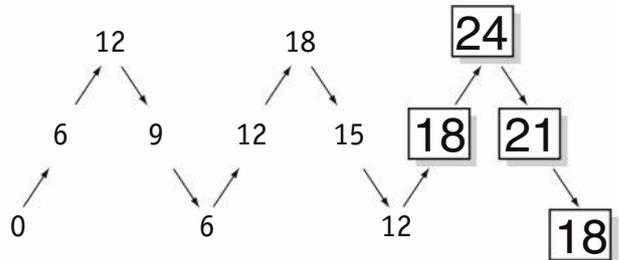
Fill in the missing numbers.

20. [Problem Solving 2]

Grandma has chickens and pigs at the farm. In total they have 14 eyes and 18 legs. How many chickens does grandma have?

5

21. [Problem Solving 3]

Di made a pyramid using this net.

Which pyramid is Di's?

A)   B)   C)

B

| 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |

MATHS MATE

ROSE
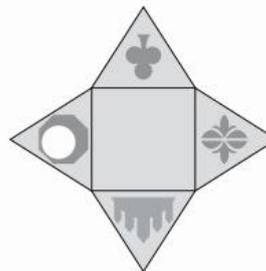
1. [Counting]

Count on by 9s from 27.

27	36	45	54	63	72

2. [Addition / Subtraction]

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
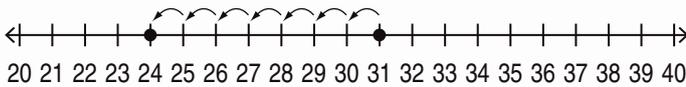
$$31 - 7 = \boxed{24}$$

3. [Multiplication / Division]

Double this number of pentagons by first drawing them.
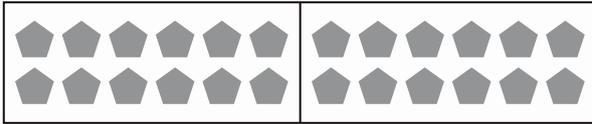
$$\boxed{2} \times \boxed{12} = \boxed{24}$$

4. [+ Whole Numbers]

$$35 + 29 = \boxed{64}$$

5. [− Whole Numbers]

$$58 - 23 = \boxed{35}$$

6. [× Whole Numbers]

	3	2	7	9	6
× 7	21	14	49	63	42

7. [÷ Whole Numbers]

	32	24	12	20	36
÷ 4	8	6	3	5	9

8. [Word Problems]

If a rugby union team has 15 players on the field, how many players are on the field in a grand final?
[Write the number sentence.]

$$2 \times 15 = 30$$

9. [Fractions]

Latika has listened to one quarter of the song. What fraction of the song is left to hear?

$$\frac{3}{4}$$

10. [Place Value]

Write the value of each digit.

$$5822 = \boxed{5000 + 800 + 20 + 2}$$

11. [Word Numbers]

Write the number 568 in words.

five hundred and sixty-eight

12. [Money]

Circle the exact money needed to buy the toy hammer.

$9.20
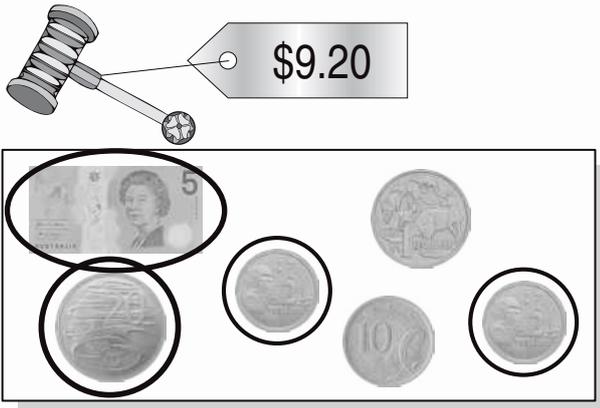
13. [Number Patterns]

3 , 7 , 11 , 15 , 19 , | 23 , 27 |

14. [Time]

Draw hands on the clock to show twenty-five past three.

15. [Measuring]

A water cooler holds 6000 mL of water. How many litres is this?
[1000 mL = 1 litre]

A) 6000   B) 6
C) 60   D) 600 | B |

16. [Shapes]

Name the two shapes used to make this figure.
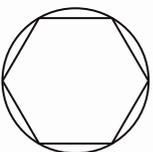
| **circle** and **hexagon** |

17. [Location]

Which quarter is to the west of the Muslim Quarter?

Walled City Of JERUSALEM

WEST BANK

ISRAEL   No Man's Land

Muslim Quarter

Christian Quarter

Mt Moriah

Jewish Quarter

Armenian Quarter

N
W — E
S

0   300 m

| **Christian Quarter** |

18. [Statistics / Probability]

What is the chance ...

"No one in the class has a BBQ next week."

A)   certain
B)   uncertain | B |

19. [Problem Solving 1]

25 + 10 is the same as 15 + | 20 |

20. [Problem Solving 2]

Complete the circles, so that the sum of any three consecutive digits is 10.

①⑤④①⑤④①⑤④①

21. [Problem Solving 3]

Out of 2250 people in the stadium, 1000 people arrived by train, 500 people by bus and the rest walked. How many people walked? | 750 |

MATHS MATE

ROSE

Test 3
Covering worksheets 2.1 - 2.4

Name: ....

1. [Counting]

Count on by 6s from 30.

| 30 | 36 | 42 | 48 | 54 | 60 |

2. [Addition / Subtraction]

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

$36 - 7 = \boxed{29}$

3. [Multiplication / Division]

Double this number of triangles by first drawing them.
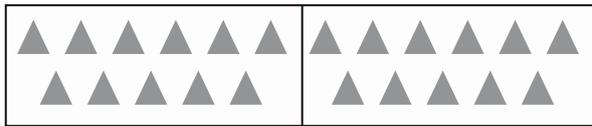
$\boxed{2} \times \boxed{11} = \boxed{22}$

4. [+ Whole Numbers]

$27 + 38 = \boxed{65}$

5. [− Whole Numbers]

$77 - 23 = \boxed{54}$

6. [× Whole Numbers]

| | 6 | 5 | 3 | 8 | 4 |
| × 7 | 42 | 35 | 21 | 56 | 28 |

7. [÷ Whole Numbers]

| | 44 | 32 | 28 | 16 | 12 |
| ÷ 4 | 11 | 8 | 7 | 4 | 3 |

8. [Word Problems]

There are 4 volleyball teams left in the finals. If each team has 6 players on the court, how many players are on the court in the finals? [Write the number sentence.]

$4 \times 6 = 24$

9. [Fractions]

Julian has eaten one third of his orange. What fraction of his orange is left to eat?

$\dfrac{2}{3}$

10. [Place Value]

Write the value of each digit.

$6148 = \boxed{6000 + 100 + 40 + 8}$

11. [Word Numbers]

Write the number 124 in words.

one hundred and twenty-four

page 11

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

Circle the exact money needed to buy the kite.

$6.20

13. [Number Patterns]

6 , 10 , 14 , 18 , 22 , | 26 , 30 |

14. [Time]

Draw hands on the clock to show twenty to seven.

15. [Measuring]

The recommended daily intake of fluids for an average healthy woman is 2000 mL. How many litres is this? [1000 mL = 1 litre]

A) 2000   B) 20
C) 2   D) 200

C

16. [Shapes]

Name the two shapes used to make this figure.

square and **triangle**
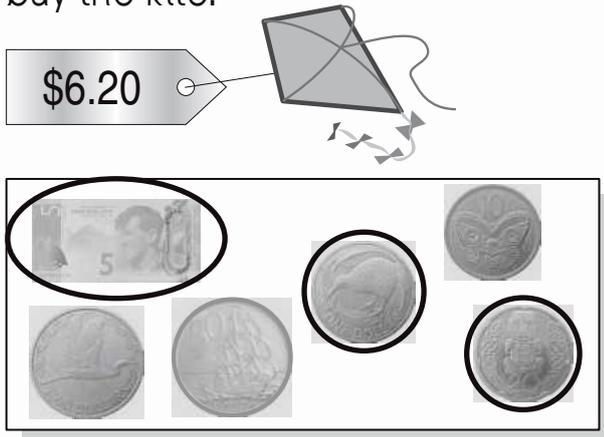
17. [Location]

Which theme park is north of Main Beach?

Sea World

18. [Statistics / Probability]

What is the chance ...

"If today is Monday tomorrow will be Tuesday."

A) certain
B) uncertain

A

19. [Problem Solving 1]

9 groups of 2 is the same as

6 groups of | 3 |

20. [Problem Solving 2]

Complete the circles, so that the sum of any three consecutive digits is 10.

③⑤②③⑤②③⑤②③

21. [Problem Solving 3]

Cameron read 15 of the 120 pages of his book. How many more pages must he read to reach the middle?

45

MATHS MATE

Test 4
Covering worksheets 2.5 - 2.8

Name: ....

1. [Counting]

Complete the skip counting pattern.

8 12 16 **20** **24** 28 32 **36**

2. [Addition / Subtraction]

How much must be added to 3 to make 21?

$+7$ $+10$ $+1$

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

$21 - 3 =$ **18**

3. [Multiplication / Division]

Complete the multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$5 \times 7 =$ **35**

4. [+ Whole Numbers]

$$\begin{array}{r} 1\,3\,6 \\ +\,5\,7\,5 \\ \hline \mathbf{7\,1\,1} \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 3\,7 \\ -\,1\,8 \\ \hline \mathbf{1\,9} \end{array}$$

6. [× Whole Numbers]

$5 \times 70 =$ **350**

7. [÷ Whole Numbers]

	25	10	15	40	35
÷ 5	**5**	**2**	**3**	**8**	**7**

8. [Word Problems]

A sulphur-crested cockatoo typically lives for 80 years.
A bear's life span is half of this.
What is a bear's life span?
[Write the number sentence.]

$80 \div 2 = 40$ years

9. [Fractions]

Show with an arrow $1\frac{1}{2}$ on the number line.

1   2
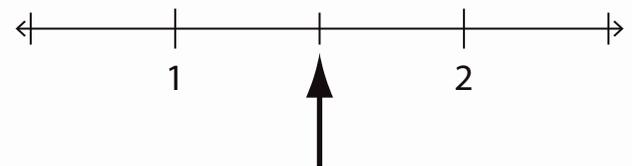
10. [Place Value]

In which number does the digit 2 have greater value?

A) 5621   B) 3284

B

11. [Word Numbers]

Write in numerals:

two thousand and eighty-three

2083

12. [Money]

You have $30.50 Which two items can you afford to buy?

A)   B)   C)

$14.50 $16.50 $15.50

A & C

13. [Number Patterns]

37 , 31 , 25 , 19 , 13 ,   7 , 1

14. [Time]

Which time is shown on the clock?

A) 8:25
B) 4:40
C) 9:25

A

15. [Measuring]

What is the volume of the water?

40 mL
30 mL
20 mL
10 mL
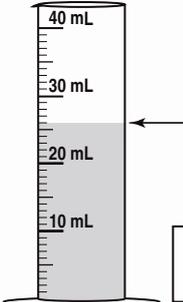
26 mL

16. [Shapes]

How many sides does a rectangle have?

4

17. [Location]

Circle the doll which is the same as the one in column 1, row 2.

Row 3

Row 2

Row 1

Column 1   Column 2   Column 3

18. [Statistics / Probability]

Which African nation has about 50 million more people than Kenya?

African Nations - Population

Population (millions)

180
160
140
120
100
80
60
40
20
0

Cameroon   Ethiopia   Kenya   Nigeria   Tanzania

Ethiopia

19. [Problem Solving 1]

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 22 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

5

20. [Problem Solving 2]

What is the largest, odd 4-digit number with digits that add to 13?

9301

21. [Problem Solving 3]

Four students ran in a race:

• Pat is behind Daniela
• Daniela is behind Lin

If Carol finished second, who won the race?

Lin

MATHS MATE

Test 4
Covering worksheets 2.5 - 2.8

Name: ....

---

1. [Counting]

Complete the skip counting pattern.

60 70 **80** 90 **100** **110**

2. [Addition / Subtraction]

How much must be added to 6 to make 23?

$+4$　　　$+10$　　　$+3$

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

$$23 - 6 = \boxed{17}$$

3. [Multiplication / Division]

Complete the multiplication.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

$$9 \times 6 = \boxed{54}$$

4. [+ Whole Numbers]

$$\begin{array}{r} 7\ 3\ 8 \\ +\ 1\ 9\ 4 \\ \hline \boxed{9\ 3\ 2} \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 3\ 3 \\ -\ 1\ 9 \\ \hline \boxed{1\ 4} \end{array}$$

6. [× Whole Numbers]

$$90 \times 3 = \boxed{270}$$

7. [÷ Whole Numbers]

	50	45	5	20	30
÷ 5	10	9	1	4	6

8. [Word Problems]

A blue whale typically lives for 80 years. A grey squirrel's life span is four times less than this. What is a grey squirrel's life span? [Write the number sentence.]

$$80 \div 4 = 20 \text{ years}$$

9. [Fractions]

Show with an arrow $1\frac{1}{3}$ on the number line.

1　　　2　　　3
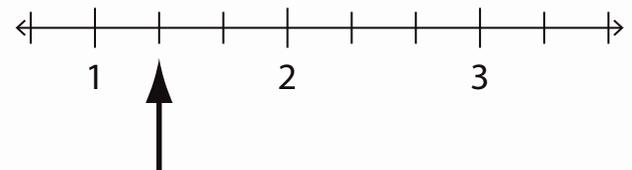
10. [Place Value]

In which number does the digit 9 have greater value?

A) 987　　　B) 2549　　　$\boxed{A}$

11. [Word Numbers]

Write in numerals:

four thousand and fifty-seven

$$\boxed{4057}$$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

You have $94. Which two items can you afford to buy?

A) $44.99   B) $48   C) $49.95

A & B

13. [Number Patterns]

38 , 32 , 26 , 20 , 14 , **8** , **2**

14. [Time]

Which time is shown on the clock?

A) 10:20
B) 4:10
C) 3:50

C

15. [Measuring]

What is the volume of the water?

50 mL
40 mL
30 mL
20 mL
10 mL
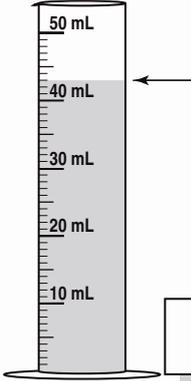
43 mL

16. [Shapes]

How many vertices does a pentagon have?

5

17. [Location]

Circle the clown which is the same as the one in column 2, row 3.

Row 3
Row 2
Row 1

Column 1   Column 2   Column 3

18. [Statistics / Probability]

Which continent has 4 million square kilometres less area than Antarctica?

Area of Continents

Africa
Antarctica
Asia
Australia/Oceania
Europe
North America
South America

0   10   20   30   40   50
(million sq km)

Europe

19. [Problem Solving 1]

Ten toothpicks can be used to make a rectangle in 2 ways, as shown below. How many different sized rectangles can be made using 18 toothpicks? [All toothpicks must be used each time.]

[1,4,1,4]

[2,3,2,3]

4

20. [Problem Solving 2]

What is the largest, odd 4-digit number with digits that add to 16?

9601

21. [Problem Solving 3]

Four cars competed in a race:

• Toyota finished ahead of Honda
• Mazda is ahead of Toyota
• Ford is behind Honda

Which car came second?

Toyota

MATHS MATE

1. [Counting]

Is the sum of 16 and 21 an odd or an even number?

odd

2. [Addition / Subtraction]

Complete the subtraction.
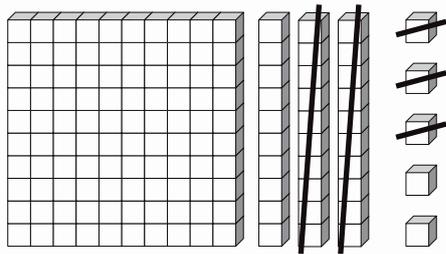
135 − 23 = 112

3. [Multiplication / Division]

Circle to complete the division.
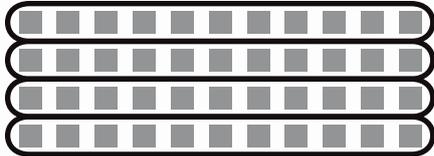
$44 \div 4 =$ 11

4. [+ Whole Numbers]

13	18	4	7	15
+9				
22	27	13	16	24

5. [− Whole Numbers]

$$\begin{array}{r} 5\,9\,5 \\ -\,3\,6\,8 \\ \hline 2\,2\,7 \end{array}$$

6. [× Whole Numbers]

$$\begin{array}{r} 8 \\ \times\,7 \\ \hline 5\,6 \end{array}$$

7. [÷ Whole Numbers]

	24	30	48	12	18
÷6	4	5	8	2	3

8. [Word Problems]

Jupiter only has 62 moons. The other planets in our solar system have 77 moons in total. How many moons are there altogether in our solar system?
[Write the number sentence.]

$62 + 77 = 139$

9. [Fractions]

Complete the equivalent fractions.

$\frac{3}{12} = \frac{1}{4}$

10. [Place Value]

Use <, = or > to make this true.

795 $<$ 7095

11. [Word Numbers]

Write the number 6095 in words.

six thousand and ninety-five

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

How many 20¢ coins make $3.20?

16

13. [Number Patterns]

1 , 3 , 7 , 9 , 13 , **15 , 19**

14. [Time]

Write the time 'sixteen minutes past one in the morning' in digital form.

1 : 16 am

15. [Measuring]

Find the perimeter of the rectangle.
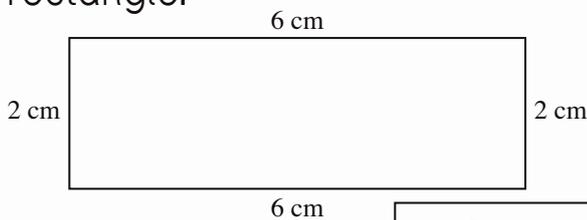
6 cm

2 cm | | 2 cm

6 cm

16 cm

16. [Shapes]

Draw the lines of symmetry.
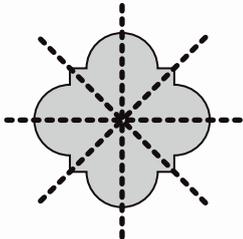
17. [Location]

You ride along Witt Street towards the church. What is the third street on your right?

Yarrawonga - Victoria

Lake Mulwala

Bank St

Foreshore
(Frank Kean Reserve)

Hunt St

You are here

Hunt St

Melbourne St

Hume St

Lynch St

Haeblich St

Murphy St

Coghill St

Belmore St

Witt St

Kennedy Memorial Park
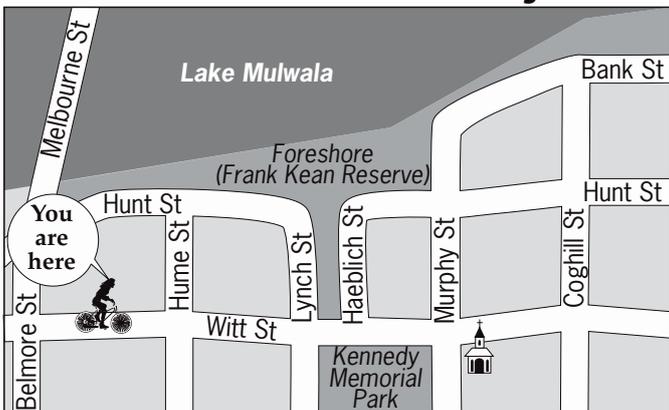
Murphy St

18. [Statistics / Probability]

Which country won 12 gold medals at the Rio 2016 Olympics?

Rio 2016 Olympics - Gold Medals	
Germany	●●●●●●●●◖
Brazil	●●●◖
Japan	●●●●●●

| Each ● = 2 gold medals | Each ◖ = 1 gold medal |

Japan

19. [Problem Solving 1]
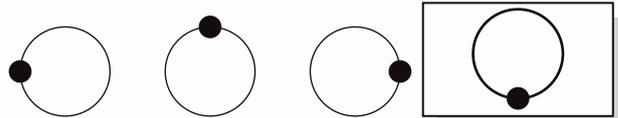
Draw the picture that comes next in the pattern.

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

3	4	2	1
2	1	4	3
4	3	1	2
1	2	3	4

21. [Problem Solving 3]

Place the numbers 3, 4, 5 and 6 in the circles, so that the sum on each line is the same.

2
6   5   OR   2
3   4   5   6
                  4   3

MATHS MATE

Test 5
Covering worksheets 3.1 - 3.4

Name: ....

---

1. [Counting]

Is the sum of 23 and 13 an odd or an even number?

even

2. [Addition / Subtraction]

Complete the subtraction.

$167 - 42 = 125$

3. [Multiplication / Division]

Circle to complete the division.

$32 \div 8 = \boxed{4}$

4. [+ Whole Numbers]

12	15	9	13	6
+9	21	24	18	22	15

5. [− Whole Numbers]

$$\begin{array}{r} 3\ 5\ 8 \\ -\ 2\ 3\ 9 \\ \hline 1\ 1\ 9 \end{array}$$
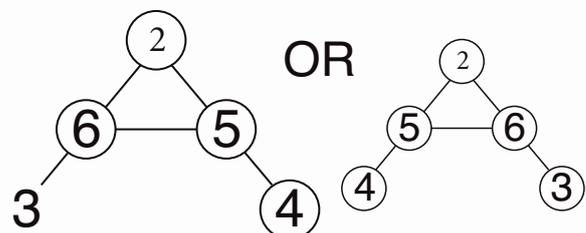
6. [× Whole Numbers]

$$\begin{array}{r} 7 \\ \times\ 9 \\ \hline 63 \end{array}$$
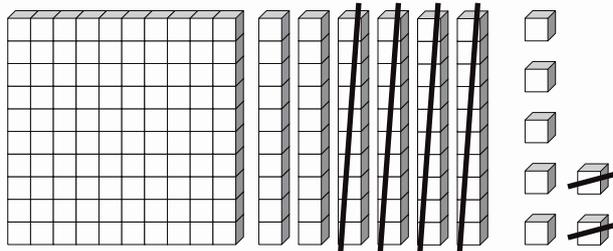
7. [÷ Whole Numbers]

	6	42	36	60	30
÷ 6	1	7	6	10	5
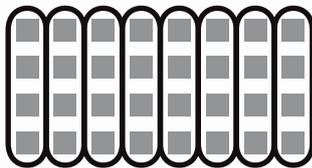
8. [Word Problems]

Brian drove 466 kilometres from Blenheim to Timaru, rested, then drove another 330 kilometres to Queenstown. How far did Brian drive altogether?
[Write the number sentence.]

$466 + 330 = 796$ km

9. [Fractions]

Complete the equivalent fractions.

$$\frac{6}{10} = \frac{3}{5}$$

10. [Place Value]

Use <, = or > to make this true.

$1842 \boxed{>} 1824$

11. [Word Numbers]

Write the number 8042 in words.

eight thousand and forty-two

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

12. [Money]

How many 50¢ coins make $7.50?

15

13. [Number Patterns]

2 , 4 , 8 , 10 , 14 , <u>16</u> , <u>20</u>

14. [Time]

Write the time 'nineteen minutes past four in the morning' in digital form.

4 : 19 am

15. [Measuring]

Find the perimeter of the rhombus.
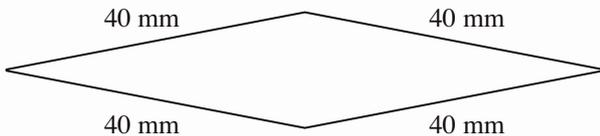
40 mm   40 mm

40 mm   40 mm

160 mm

16. [Shapes]

Draw the lines of symmetry.
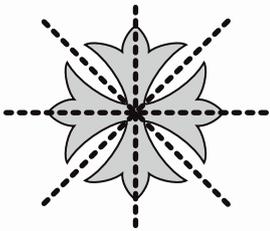
17. [Location]

You ride along Gregory St until you get to Parap Rd. How many streets do you pass on your left?

Parap - **Darwin**

East Point Rd

Lampe St

Kellaway St | Knight St | Little St | Macartney St | Macdonald St | Easy St | Parap Rd

Gregory St

You are here
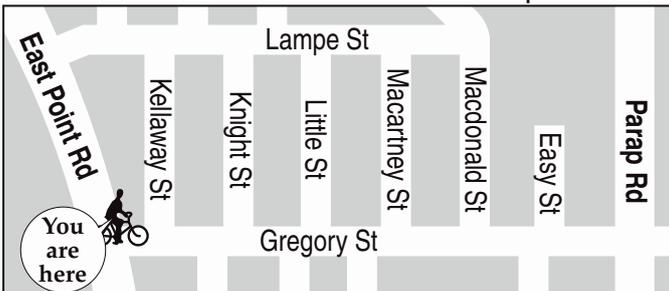
6

18. [Statistics / Probability]

How many bronze medals did the USA athletics team win at the 2016 Rio de Janeiro Olympics?

2016 Olympics - USA Athletics Team
Gold
Silver
Bronze

Each = 2 gold medals | Each = 1 gold medal

9

19. [Problem Solving 1]
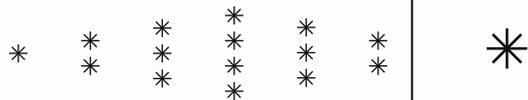
Draw the picture that comes next in the pattern.

✳

20. [Problem Solving 2]

Fill in the puzzle so that each 2 × 2 box, each row and each column contain all the numbers from 1 to 4.

1	2	4	3
3	4	1	2
2	1	3	4
4	3	2	1

21. [Problem Solving 3]

Place the numbers 2, 4, 8 and 10 in the circles, so that the sum on each line is the same.

10

2

6 — 4 — 8

OR

8

4

6 — 2 — 10

MATHS MATE

Test 6
Covering worksheets 3.5 - 3.8

Name: ....

1. [Counting]

Complete the number line.

7 | **14** | 21 | 28 | **35** | **42** | **49** | 56
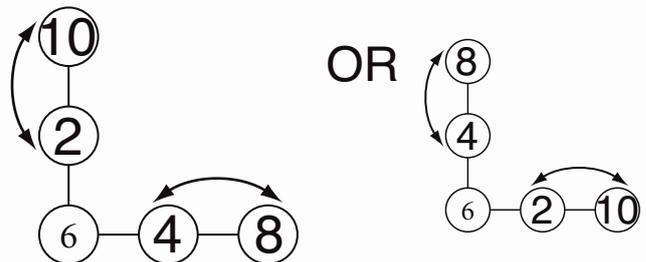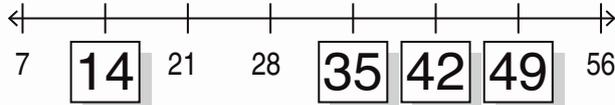
2. [Addition / Subtraction]

Complete the number sentence.
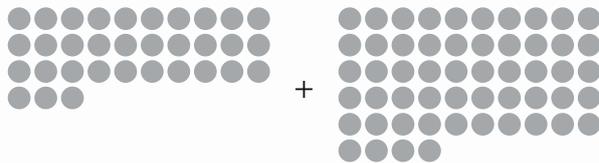
33 + **54** = **87**

3. [Multiplication / Division]
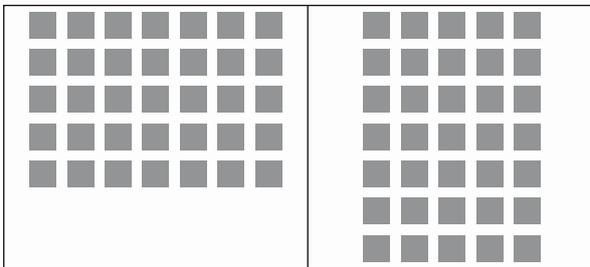
$5 \times 7 = 7 \times$ **5**

4. [+ Whole Numbers]

6 $+ 17 = 23$

5. [− Whole Numbers]

14	11	16	23	18
− 7				
7	**4**	**9**	**16**	**11**

6. [× Whole Numbers]

$$2\ 4$$
$$\times \quad 3$$

12 ← 3×4 units

+ **60** ← 3×2 tens

72

7. [÷ Whole Numbers]

4

$7 \overline{)\ 2\ 8}$

8. [Word Problems]

Victoria was Queen of the United Kingdom of Great Britain and Ireland between 1837 and 1901. For how many years did she reign? [Write the number sentence.]

1901 − 1837 = 64 years

9. [Fractions]

Use <, = or > to make this true.

0 | $\frac{1}{4}$ | $\frac{2}{4}$ | $\frac{3}{4}$ • | 1

0 | $\frac{1}{8}$ | $\frac{2}{8}$ | $\frac{3}{8}$ • | $\frac{4}{8}$ | $\frac{5}{8}$ | $\frac{6}{8}$ | $\frac{7}{8}$ | 1
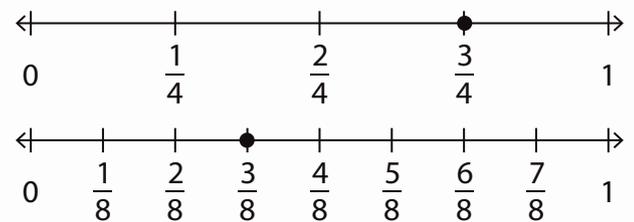
$\frac{3}{4}$ **>** $\frac{3}{8}$

10. [Place Value]

Using the digits 2, 4, 7 and 9 write a number between 4950 and 5000.

4972

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

11. [Word Numbers]

Write in numerals:

seventy thousand and fourteen

70 014

12. [Money]

How much change would you get from $20?

$15.40

$ 4.60

13. [Number Patterns]

18 , 16 , 13 , 11 , 8 , <u>6</u> , <u>3</u>

14. [Time]

Write the time 4:35 in words.

four thirty-five

OR twenty-five to five

15. [Measuring]

Find the area of the shaded rectangle.

6 cm

3 cm
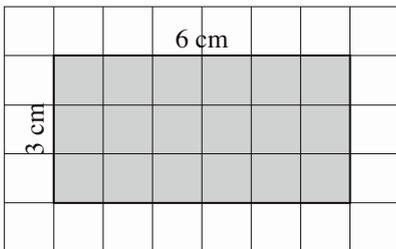
18 cm²

16. [Shapes]

The tip tray of which truck shows the greatest angle?
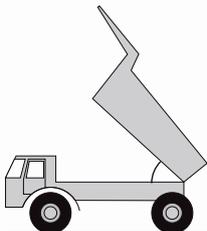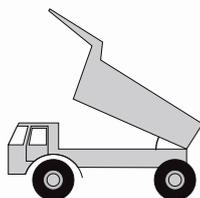
A)   B)

A

17. [Location]

Draw the reflection of this shape flipped across the dotted line.
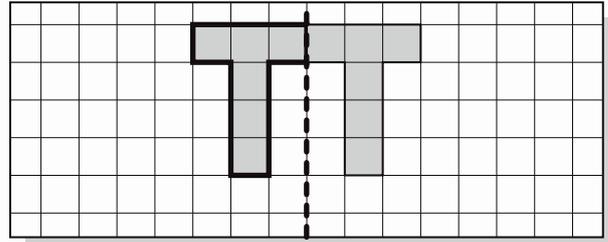
18. [Statistics / Probability]

Use the table to complete the graph.

Number of car seats

Car	Number of seats
Ute	2
People Mover	8
Station Wagon	5

Number of seats

8
7
6
5
4
3
2
1
0

Ute   People Mover   Station Wagon

Car type
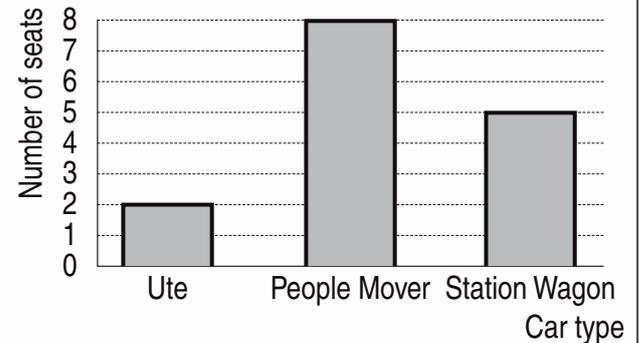
19. [Problem Solving 1]

Complete the addition table.

+	2	4	6
4	6	8	10
6	8	10	12
8	10	12	14

20. [Problem Solving 2]

Which factor of 12 is missing from this list of factors?

1, 2, 3, 4 , 6, 12

21. [Problem Solving 3]

There are 24 nuts in a bowl. Mai ate one quarter of the nuts. How many nuts were left in the bowl?

18

MATHS MATE

Test 6
Covering worksheets 3.5 - 3.8

Name: ....

---

1. [Counting]

Complete the number line.

21   28   35   **42** **49** **56** **63**   70
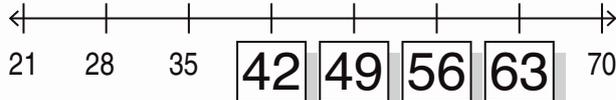
2. [Addition / Subtraction]

Complete the number sentence.

+
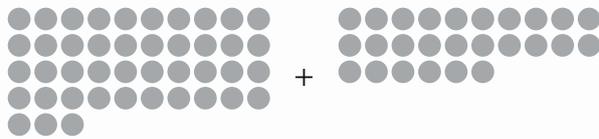
$$\boxed{43} + \boxed{26} = \boxed{69}$$

3. [Multiplication / Division]
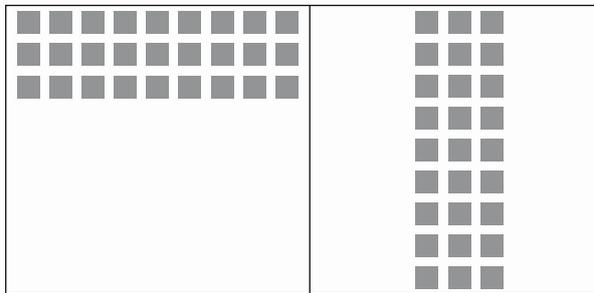
$$3 \times 9 = 9 \times \boxed{3}$$

4. [+ Whole Numbers]

$$\boxed{9} + 16 = 25$$

5. [− Whole Numbers]

15	9	21	18	10
− 7				
8	**2**	**14**	**11**	**3**
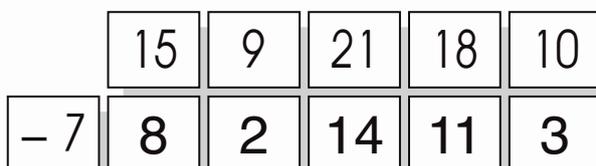
6. [× Whole Numbers]

$$\begin{array}{r} 4\,2 \\ \times \quad 8 \\ \hline \end{array}$$

$\boxed{1\,6}$ ←8×2 units

$+ \boxed{3\,2\,0}$ ←8×4 tens

$\boxed{3\,3\,6}$

7. [÷ Whole Numbers]

$$4\overline{)2\,4}$$

$\boxed{6}$

8. [Word Problems]

Empress Catherine the Great of Russia reigned between 1762 and 1796. For how many years did she reign? [Write the number sentence.]

$$\boxed{1796 - 1762 = 34 \text{ years}}$$

9. [Fractions]

Use <, = or > to make this true.

0    $\frac{1}{8}$ $\frac{2}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{7}{8}$ 1

0    $\frac{1}{3}$ $\frac{2}{3}$ 1
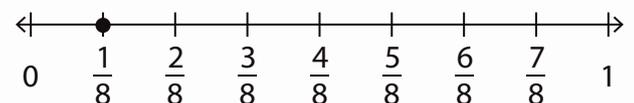
$$\frac{1}{8} \boxed{<} \frac{1}{3}$$

10. [Place Value]

Using the digits 1, 3, 4 and 7 write a number between 3100 and 3150. $\boxed{3147}$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

11. [Word Numbers]

Write in numerals:

eighty thousand and eleven

$$80\,011$$

12. [Money]

How much change would you get from $100?

$79.70
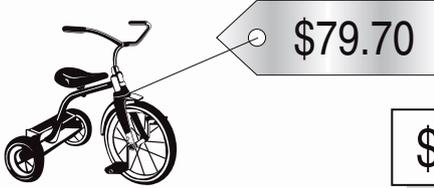
$20.30

13. [Number Patterns]

16 , 14 , 11 , 9 , 6 , <u>4</u> , <u>1</u>

14. [Time]

Write the time 12:35 in words.

twelve thirty-five

OR twenty-five to one

15. [Measuring]

Find the area of the shaded square.
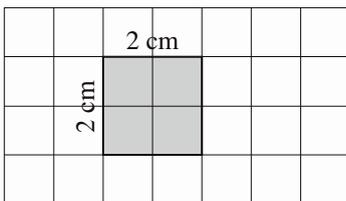
2 cm

2 cm

$4\ cm^2$

16. [Shapes]

The open pages of which book show the greatest angle?
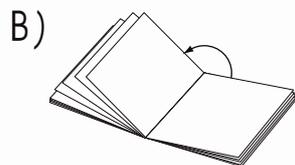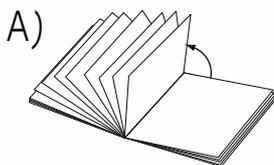
A)

B)

B

17. [Location]

Draw the reflection of this shape flipped across the dotted line.

18. [Statistics / Probability]

Use the table to complete the graph.

A-League champions: 2014 - 2019

Team	Wins	Team	Wins
Melbourne Victory	2	Sydney FC	2
Brisbane Roar	1	Adelaide United	1

Melbourne Victory
Brisbane Roar
Sydney FC
Adelaid United

0　　1　　2　　3
Number of championships
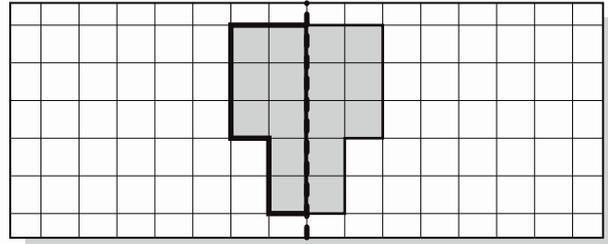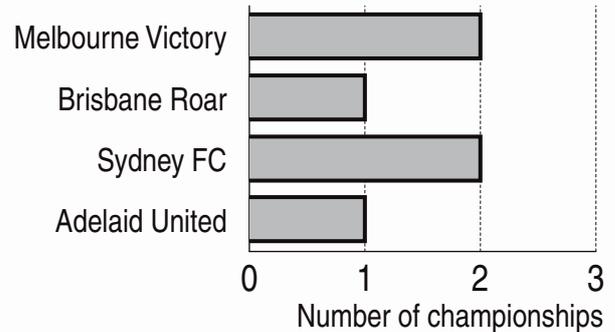
19. [Problem Solving 1]

Complete the addition table.

+	1	3	5
2	3	**5**	**7**
4	5	**7**	**9**
6	**7**	**9**	11

20. [Problem Solving 2]

Which factor of 16 is missing from this list of factors?

1, 2, 4, **8** , 16

21. [Problem Solving 3]

Mum cut the cake into 12 equal pieces. My family ate two thirds of the pieces. How many pieces did my family eat?

8

MATHS MATE

Test 7
Covering worksheets 4.1 - 4.4

Name: ....

1. [Counting]

Start at 27. Count backward 8.

$\boxed{19}$

2. [Addition / Subtraction]

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
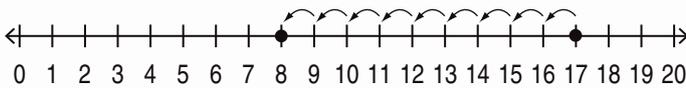
$8 + 9 = 17$

$17 - 9 = \boxed{8}$

3. [Multiplication / Division]
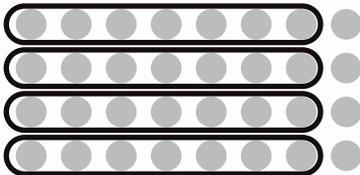
$32 \div 7 = \boxed{4}$ remainder $\boxed{4}$

4. [+ Whole Numbers]

$$\begin{array}{r} 4\ 1\ 3 \\ 3\ 7 \\ +\ 2\ 4\ 5 \\ \hline \boxed{6\ 9\ 5} \end{array}$$

5. [− Whole Numbers]

$13 - \boxed{5} = 8$

6. [× Whole Numbers]

$$\begin{array}{r} 3\ 0\ 2 \\ \times\ \ \ \ 3 \\ \hline \boxed{9\ 0\ 6} \end{array}$$

7. [÷ Whole Numbers]

$\boxed{16} \div 8 = 2$

8. [Word Problems]

The brain of an adult Humpback Whale weighs 6 kg. How much would the brains of 3 similar adult Humpback Whales weigh?
[Write the number sentence.]

$\boxed{3 \times 9 = 27}$ kg

9. [Fractions]

Shade to complete the sum.

$\frac{1}{4} + \frac{2}{4} = \boxed{\dfrac{3}{4}}$

10. [Place Value]

Place in order from largest to smallest:

5723, 2753, 5572, 3725

$\boxed{5723,\ 5572,\ 3725,\ 2753}$

11. [Word Numbers]

Write the number 60 020 in words.

$\boxed{\text{sixty thousand and twenty}}$

12. [Money]

What is the total value of:

1 fifty-cent coin,
4 twenty-cent coins and
1 ten-cent coin?

$1.40

13. [Number Patterns]

2 , 4 , 8 , 16 , 32 , 64

14. [Time]

How long should it take to travel between Kings Cross and Bondi Junction stations?

NSW Transport CityRail

Eastern Line		
Kings Cross	12:52 pm	1:01 pm
Edgecliff	12:54 pm	1:03 pm
Bondi Junction	12:57 pm	1:06 pm

5 minutes

15. [Measuring]

The shapes below have the same:

A) perimeter
B) area
C) perimeter and area
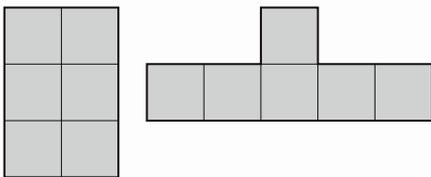
B

16. [Shapes]

Which triangle is an acute-angled triangle?

A) B) C)
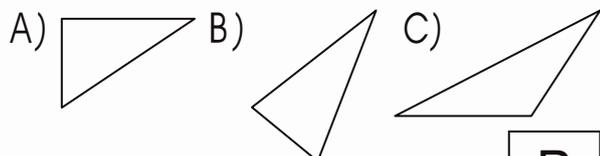
B

17. [Location]

Which city is located at position E2?

AUSTRALIA
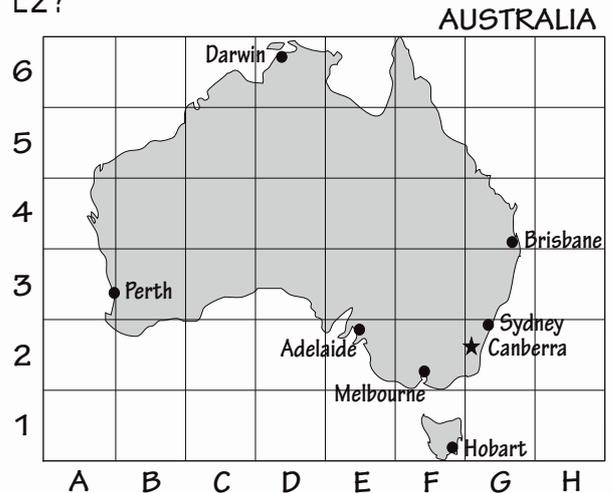
Adelaide

18. [Statistics / Probability]

Two jars contain chocolates. A chocolate is chosen from each jar without looking. From which jar is a dark chocolate certain to be chosen?

A) B)

B
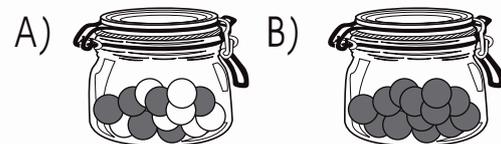
19. [Problem Solving 1]

If you multiply a number by 3 and add 20 to the result, you get 35. What is the number?

5

20. [Problem Solving 2]

It is now midnight. Will it be night time in 48 hours?

yes

21. [Problem Solving 3]

Adrian and Max have 15 pencils in total. Max has 3 less pencils than Adrian. How many pencils does Max have?

6

12 13 14 15 16 17 18 19 20 21

MATHS MATE

1. [Counting]

Start at 93. Count backward 6.

$$87$$

2. [Addition / Subtraction]

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

$8 + 5 = 13$

$13 - 8 = \boxed{5}$

3. [Multiplication / Division]

$30 \div 11 = \boxed{2}$ remainder $\boxed{8}$

4. [+ Whole Numbers]

$$\begin{array}{r} 5\,2\,4 \\ 6\,8 \\ +\,3\,0\,2 \\ \hline 8\,9\,4 \end{array}$$

5. [– Whole Numbers]

$16 - \boxed{9} = 7$

6. [× Whole Numbers]

$$\begin{array}{r} 1\,2\,2 \\ \times \quad 4 \\ \hline 4\,8\,8 \end{array}$$
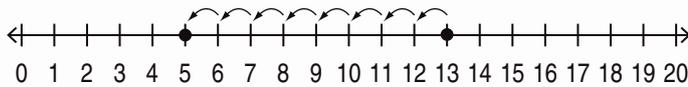
7. [÷ Whole Numbers]

$\boxed{25} \div 5 = 5$

8. [Word Problems]

An octopus has 3 hearts. How many hearts would 8 octopuses have?
[Write the number sentence.]

$$8 \times 3 = 24$$
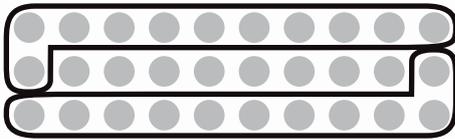
9. [Fractions]

Shade to complete the sum.

$\dfrac{1}{5} + \dfrac{2}{5} = \boxed{\dfrac{3}{5}}$

10. [Place Value]

Place in order from largest to smallest:

1849, 1948, 9418, 4914

$$9418, 4914, 1948, 1849$$

11. [Word Numbers]

Write the number 70010 in words.

seventy thousand and ten

12. [Money]

What is the total value of:

2 one-dollar coins,
2 twenty-cent coins and
4 ten-cent coins?

$ 2.80

13. [Number Patterns]

3 , 6 , 12 , 24 , 48 , 96

14. [Time]

How long should it take to travel between Flinders Street and Southern Cross stations?

Glen Waverley Line	Mon to Fri (pm)		
Flinders Street	1:10	1:25	1:40
Southern Cross	1:13	1:28	1:43

3 minutes

15. [Measuring]

The shapes below have the same:

A) perimeter
B) area
C) perimeter and area

A

16. [Shapes]

Which triangle is a right-angled triangle?

A) B) C)

C

17. [Location]

Which sea would you be sailing if your boat was located at position F2?

South Pacific

5	INDONESIA		Arafura Sea	PAPUA NEW GUINEA		
4		Timor Sea			Coral Sea	
3	Indian Ocean		AUSTRALIA			
2					Tasman Sea	
1						NEW ZEALAND
	A	B	C	D	E	F	G
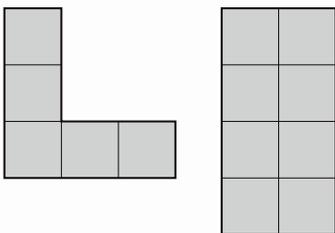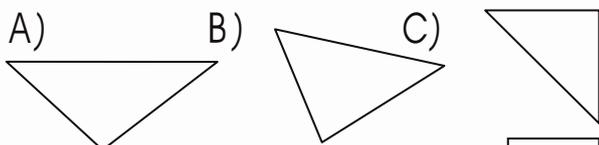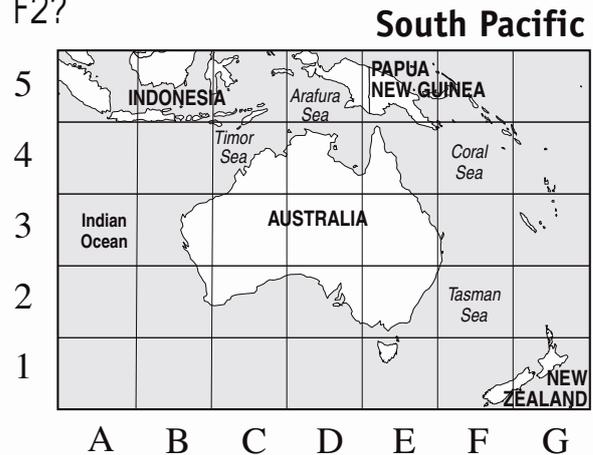
Tasman Sea

18. [Statistics / Probability]

Two jars contain chocolates. A chocolate is chosen from each jar without looking. From which jar does a white and a dark chocolate have equal chance of being chosen?

A) B)

B
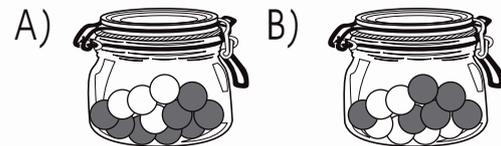
19. [Problem Solving 1]

If you multiply a number by 4 and add 10 to the result, you get 34. What is the number?

6

20. [Problem Solving 2]

It is now midday. Will it be daytime in 36 hours?

no

21. [Problem Solving 3]

There are 22 students in the class. There are 2 more girls than boys. How many girls are in the class?

12

MATHS MATE

1. [Counting]

Count on by 9s.

| 90 | 99 | 108 | 117 | 126 |

2. [Addition / Subtraction]

Complete the addition.
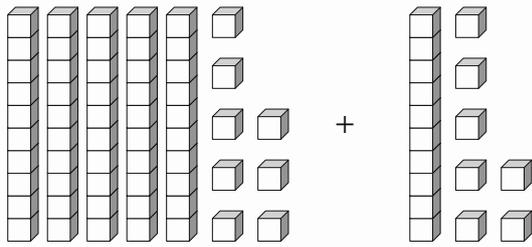
$$58 + 17 = 75$$

3. [Multiplication / Division]
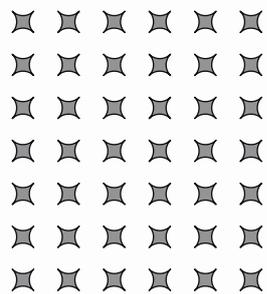
$$\boxed{6} \times 7 = 42$$

$$7 \times 6 = \boxed{42}$$

$$42 \div \boxed{7} = 6$$

$$\boxed{42} \div 6 = 7$$

4. [+ Whole Numbers]

$$\begin{array}{r} 7\,9\,2\,6 \\ +\,1\,0\,8\,5 \\ \hline 9\,0\,1\,1 \end{array}$$

5. [– Whole Numbers]

$$\begin{array}{r} 5\,0\,1 \\ -\,1\,8\,6 \\ \hline 3\,1\,5 \end{array}$$

6. [× Whole Numbers]

$$9 \times 4 \times 5 = \boxed{180}$$

7. [÷ Whole Numbers]

$$\begin{array}{r} 1\,2\,4 \\ 2\,\overline{)\,2\,4\,8} \end{array}$$

8. [Word Problems]

The cheetah can reach a speed of 120 kilometres per hour. The elephant can reach a speed 3 times less than this. What speed can an elephant reach? [Write the number sentence.]

$$120 \div 3 = 40 \text{ km/h}$$

9. [Fractions]

$$\frac{6}{8} - \frac{3}{8} = \boxed{\frac{3}{8}}$$

10. [Place Value]

Round 1406 to the nearest hundred.

1400

11. [Word Numbers]

Write in numerals:

three hundred and seventy thousand

370 000

12. [Money]

Calculate the total cost of:

nail polish remover at $8.75
nail polish at $6.00
a nail file at $1.00

$ 15.75

13. [Number Patterns]

8 , 40 , 200 , 1000 , 5000

14. [Time]

Write in hours.

120 minutes = 2 hours

15. [Measuring]
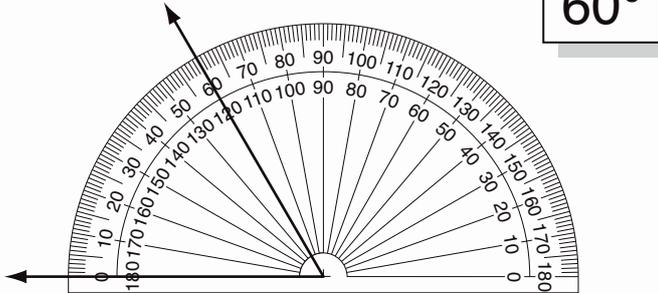
Use the protractor to measure the size of this angle.

60°

16. [Shapes]

This triangle has:

A) two perpendicular sides
B) all sides of equal length
C) no line of symmetry
D) two parallel sides

B

17. [Location]

In which position is Babbage?
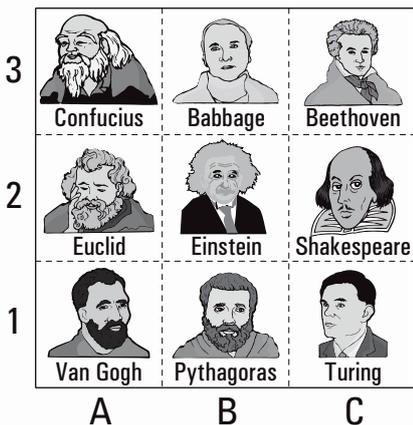
A) A2   B) C1   C) C3   D) B3

3	Confucius	Babbage	Beethoven
2	Euclid	Einstein	Shakespeare
1	Van Gogh	Pythagoras	Turing
	A	B	C

D

18. [Statistics / Probability]

Which country has closest to 600 cars for every 1000 people?

Access to cars

Cars per 1000 people
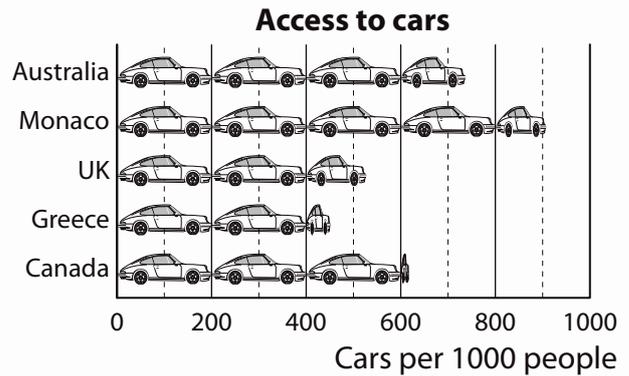
Canada

19. [Problem Solving 1]

How many times do you write the digit 6 when writing all the numbers from 10 to 70?

16

20. [Problem Solving 2]

Trish had $32. Don had $16. How much did Trish give Don if they now have the same amount?

$ 8

21. [Problem Solving 3]

Find the weight of a tomato.

200 g

Rose Test 8A © Copyright. Not to be reproduced without permission. J. B. Wright 2020

12   13   14   15   16   17   18   19   20   21

MATHS MATE

ROSE

Test 8
Covering worksheets 4.5 - 4.8

Name: ....

---
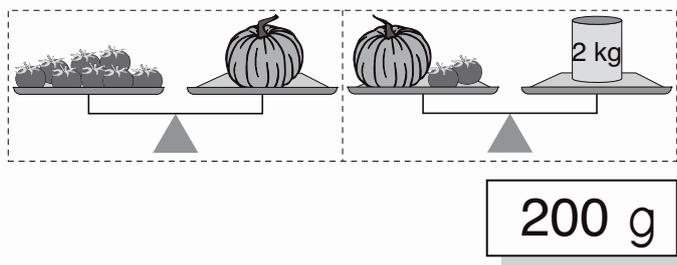
1. [Counting]

Count on by 9s.

108	117	126	135	144

2. [Addition / Subtraction]

Complete the addition.
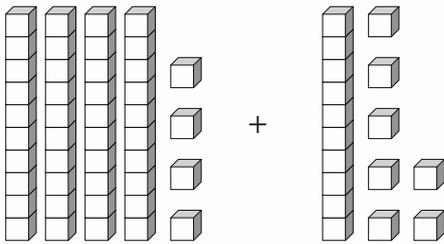
$$44 + 17 = 61$$

3. [Multiplication / Division]

$$6 \times 10 = 60$$

$$10 \times 6 = 60$$

$$60 \div 10 = 6$$

$$60 \div 6 = 10$$

4. [+ Whole Numbers]

$$\begin{array}{r} 5\,4\,3\,7 \\ +\,3\,6\,9\,5 \\ \hline 9\,1\,3\,2 \end{array}$$

5. [− Whole Numbers]

$$\begin{array}{r} 6\,0\,7 \\ -\,4\,3\,9 \\ \hline 1\,6\,8 \end{array}$$

6. [× Whole Numbers]

$$2 \times 8 \times 4 = 64$$

7. [÷ Whole Numbers]

$$3\,\overline{)\,6\,3\,9} = 213$$

8. [Word Problems]

The pronghorn antelope can reach a speed of 96 kilometres per hour. The grizzly bear can reach a speed 2 times less than this. What speed can a grizzly bear reach?
[Write the number sentence.]

$$96 \div 2 = 48 \text{ km/h}$$

9. [Fractions]

$$\frac{9}{10} - \frac{7}{10} = \frac{2}{10}$$

10. [Place Value]

Round 3280 to the nearest hundred.

3300

11. [Word Numbers]

Write in numerals:

eight hundred and ten thousand

810 000

---

12. [Money]

Calculate the total cost of:

ice cream at $5.75
cones at $3.00
topping at $3.25

$12.00

13. [Number Patterns]

4 , 20 , 100 , 500 , **2500**

14. [Time]

Write in days.

48 hours = **2 days**

15. [Measuring]
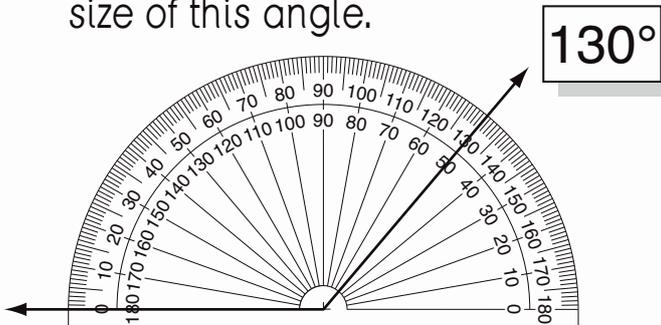
Use the protractor to measure the size of this angle.

130°

16. [Shapes]

This trapezium has:

A) two perpendicular sides
B) all sides of equal length
C) one line of symmetry
D) two parallel sides

D

17. [Location]
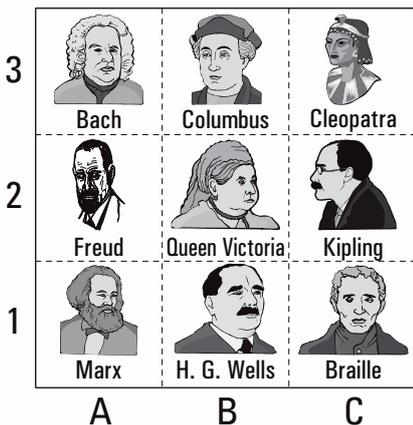
In which position is Cleopatra?

A) A1   B) C2   C) C3   D) B2

	A	B	C
3	Bach	Columbus	Cleopatra
2	Freud	Queen Victoria	Kipling
1	Marx	H. G. Wells	Braille

C

18. [Statistics / Probability]

For how many years was the Nobel Prize for literature **not** awarded?

Nobel prizes NOT awarded
(1901 - 2018)

Physics
Chemistry
Medicine
Literature
Peace
Economics

0 2 4 6 8 10 12 14 16 18 20
years
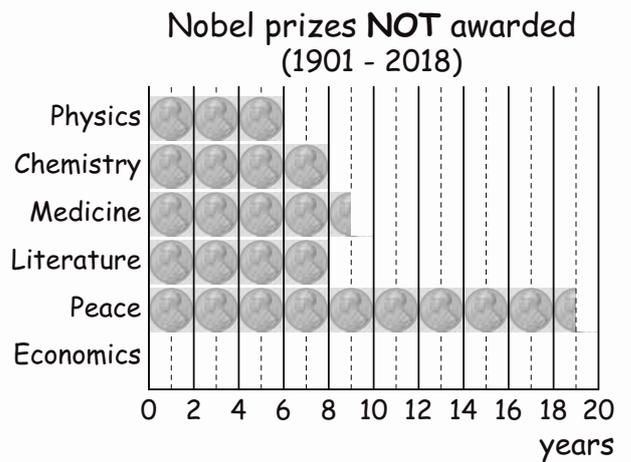
8 years

19. [Problem Solving 1]

How many times do you write the digit 1 when writing all the numbers from 1 to 50?

15

20. [Problem Solving 2]

Daniel had $25. Paul had $65. How much did Paul give Daniel if they now have the same amount?

$20

21. [Problem Solving 3]

Find the weight of an apple.

1 kg

100 g

MATHS MATE

RS○ ROSE

Teacher Resource

MATHS MATE

ROSE

Worksheet Results

Term 1

Name: ....

Class: ....

Teacher: ....

	Sheet 1	Sheet 2	Sheet 3	Sheet 4	Skill Builder links	Sheet 5	Sheet 6	Sheet 7	Sheet 8	Skill Builder links
NUMBER & ALGEBRA										
1. [Counting]	1	1	1	1	1.2,3	1	1	1	1	1.4,10
2. [Addition / Subtraction]	2	2	2	2	2.2,3,4	2	2	2	2	2.5,12
3. [Multiplication / Division]	3	3	3	3	3.3,12	3	3	3	3	3.4,13
4. [+ Whole Numbers]	4	4	4	4	4.2,3,4,5,6	4	4	4	4	4.2,3,4,5,6
5. [− Whole Numbers]	5	5	5	5	5.2,3,4,5,6	5	5	5	5	5.2,3,4,5,6
6. [× Whole Numbers]	6	6	6	6	6.2,3,5,6	6	6	6	6	6.4,5,6
7. [÷ Whole Numbers]	7	7	7	7	7.2	7	7	7	7	7.3
8. [Word Problems]	8	8	8	8	8.1,2,3,4	8	8	8	8	8.1,2,3,4
9. [Fractions]	9	9	9	9	9.2,4	9	9	9	9	9.3,6
10. [Place Value]	10	10	10	10	10.1,2	10	10	10	10	10.3
11. [Word Numbers]	11	11	11	11	11.1,2	11	11	11	11	11.1
12. [Money]	12	12	12	12	12.1,2	12	12	12	12	12.3
13. [Number Patterns]	13	13	13	13	13.1	13	13	13	13	13.2
MEASUREMENT & SPACE										
14. [Time]	14	14	14	14	14.1,2	14	14	14	14	14.3
15. [Measuring]	15	15	15	15	15.1	15	15	15	15	15.2
16. [Shapes]	16	16	16	16	16.1	16	16	16	16	16.2
17. [Location]	17	17	17	17	17.1,2	17	17	17	17	17.3
S & P										
18. [Statistics / Probability]	18	18	18	18	18.4	18	18	18	18	18.6
PROBLEM SOLVING										
19. [Problem Solving 1]	19	19	19	19	Hints & Solutions	19	19	19	19	Hints & Solutions
20. [Problem Solving 2]	20	20	20	20	Hints & Solutions	20	20	20	20	Hints & Solutions
21. [Problem Solving 3]	21	21	21	21	Hints & Solutions	21	21	21	21	Hints & Solutions
Total Correct										

MATHS MATE

ROSE

Name: ....

Class: ....

Teacher: ....

Worksheet Results

Term 2

<table>
<thead>
<tr><th></th><th></th><th>Sheet 1</th><th>Sheet 2</th><th>Sheet 3</th><th>Sheet 4</th><th>Skill Builder links</th><th>Sheet 5</th><th>Sheet 6</th><th>Sheet 7</th><th>Sheet 8</th><th>Skill Builder links</th></tr>
</thead>
<tbody>
<tr><td rowspan="13">NUMBER & ALGEBRA</td><td>1. [Counting]</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1.5,7</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1.6</td></tr>
<tr><td>2. [Addition / Subtraction]</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2.6,13</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2.14</td></tr>
<tr><td>3. [Multiplication / Division]</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3.5,6</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3.7,14</td></tr>
<tr><td>4. [+ Whole Numbers]</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4.7</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4.9</td></tr>
<tr><td>5. [− Whole Numbers]</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5.7</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5.8,9</td></tr>
<tr><td>6. [× Whole Numbers]</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6.2,3,5</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6.7</td></tr>
<tr><td>7. [÷ Whole Numbers]</td><td>7</td><td>7</td><td>7</td><td>7</td><td>7.3</td><td>7</td><td>7</td><td>7</td><td>7</td><td>7.3</td></tr>
<tr><td>8. [Word Problems]</td><td>8</td><td>8</td><td>8</td><td>8</td><td>8.1,2,3,4</td><td>8</td><td>8</td><td>8</td><td>8</td><td>8.1,2,3,4</td></tr>
<tr><td>9. [Fractions]</td><td>9</td><td>9</td><td>9</td><td>9</td><td>9.11</td><td>9</td><td>9</td><td>9</td><td>9</td><td>9.12,13</td></tr>
<tr><td>10. [Place Value]</td><td>10</td><td>10</td><td>10</td><td>10</td><td>10.4,5</td><td>10</td><td>10</td><td>10</td><td>10</td><td>10.6,7</td></tr>
<tr><td>11. [Word Numbers]</td><td>11</td><td>11</td><td>11</td><td>11</td><td>11.3</td><td>11</td><td>11</td><td>11</td><td>11</td><td>11.1</td></tr>
<tr><td>12. [Money]</td><td>12</td><td>12</td><td>12</td><td>12</td><td>12.4</td><td>12</td><td>12</td><td>12</td><td>12</td><td>12.5</td></tr>
<tr><td>13. [Number Patterns]</td><td>13</td><td>13</td><td>13</td><td>13</td><td>13.1</td><td>13</td><td>13</td><td>13</td><td>13</td><td>13.2</td></tr>
<tr><td rowspan="4">MEASUREMENT & SPACE</td><td>14. [Time]</td><td>14</td><td>14</td><td>14</td><td>14</td><td>14.4,5</td><td>14</td><td>14</td><td>14</td><td>14</td><td>14.6</td></tr>
<tr><td>15. [Measuring]</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15.10</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15.6,7</td></tr>
<tr><td>16. [Shapes]</td><td>16</td><td>16</td><td>16</td><td>16</td><td>16.4,5</td><td>16</td><td>16</td><td>16</td><td>16</td><td>16.3,6</td></tr>
<tr><td>17. [Location]</td><td>17</td><td>17</td><td>17</td><td>17</td><td>17.4</td><td>17</td><td>17</td><td>17</td><td>17</td><td>17.5</td></tr>
<tr><td>S & P</td><td>18. [Statistics / Probability]</td><td>18</td><td>18</td><td>18</td><td>18</td><td>18.5</td><td>18</td><td>18</td><td>18</td><td>18</td><td>18.3</td></tr>
<tr><td rowspan="3">PROBLEM SOLVING</td><td>19. [Problem Solving 1]</td><td>19</td><td>19</td><td>19</td><td>19</td><td>Hints & Solutions</td><td>19</td><td>19</td><td>19</td><td>19</td><td>Hints & Solutions</td></tr>
<tr><td>20. [Problem Solving 2]</td><td>20</td><td>20</td><td>20</td><td>20</td><td>Hints & Solutions</td><td>20</td><td>20</td><td>20</td><td>20</td><td>Hints & Solutions</td></tr>
<tr><td>21. [Problem Solving 3]</td><td>21</td><td>21</td><td>21</td><td>21</td><td>Hints & Solutions</td><td>21</td><td>21</td><td>21</td><td>21</td><td>Hints & Solutions</td></tr>
<tr><td></td><td>Total Correct</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</tbody>
</table>

MATHS MATE

Name: ....

Class: ....

Teacher: ....

Worksheet Results

Term 3

	Sheet 1	Sheet 2	Sheet 3	Sheet 4	Skill Builder links	Sheet 5	Sheet 6	Sheet 7	Sheet 8	Skill Builder links
NUMBER & ALGEBRA										
1. [Counting]	1	1	1	1	1.8	1	1	1	1	1.9
2. [Addition / Subtraction]	2	2	2	2	2.7,12	2	2	2	2	2.8,15
3. [Multiplication / Division]	3	3	3	3	3.3,15	3	3	3	3	3.8,9
4. [+ Whole Numbers]	4	4	4	4	4.2,3,4,5,6	4	4	4	4	4.10
5. [− Whole Numbers]	5	5	5	5	5.9	5	5	5	5	5.2,3,4,5,6
6. [× Whole Numbers]	6	6	6	6	6.8	6	6	6	6	6.9
7. [÷ Whole Numbers]	7	7	7	7	7.3	7	7	7	7	7.4
8. [Word Problems]	8	8	8	8	8.1,2,3,4	8	8	8	8	8.1,2,3,4
9. [Fractions]	9	9	9	9	9.9	9	9	9	9	9.10,14
10. [Place Value]	10	10	10	10	10.8	10	10	10	10	10.9
11. [Word Numbers]	11	11	11	11	11.4	11	11	11	11	11.1
12. [Money]	12	12	12	12	12.6	12	12	12	12	12.7
13. [Number Patterns]	13	13	13	13	13.3	13	13	13	13	13.4
MEASUREMENT & SPACE										
14. [Time]	14	14	14	14	14.6	14	14	14	14	14.7
15. [Measuring]	15	15	15	15	15.8,12	15	15	15	15	15.9,13
16. [Shapes]	16	16	16	16	16.7	16	16	16	16	16.10
17. [Location]	17	17	17	17	17.6	17	17	17	17	17.7,8
S & P										
18. [Statistics / Probability]	18	18	18	18	18.11	18	18	18	18	18.9
PROBLEM SOLVING										
19. [Problem Solving 1]	19	19	19	19	Hints & Solutions	19	19	19	19	Hints & Solutions
20. [Problem Solving 2]	20	20	20	20	Hints & Solutions	20	20	20	20	Hints & Solutions
21. [Problem Solving 3]	21	21	21	21	Hints & Solutions	21	21	21	21	Hints & Solutions
Total Correct										

MATHS MATE

Name: ....

Class: ....

Teacher: ....

Worksheet Results

Term 4

	Sheet 1	Sheet 2	Sheet 3	Sheet 4	Skill Builder links	Sheet 5	Sheet 6	Sheet 7	Sheet 8	Skill Builder links
NUMBER & ALGEBRA										
1. [Counting]	1	1	1	1	1.11	1	1	1	1	1.7
2. [Addition / Subtraction]	2	2	2	2	2.16,17	2	2	2	2	2.10
3. [Multiplication / Division]	3	3	3	3	3.16	3	3	3	3	3.17
4. [+ Whole Numbers]	4	4	4	4	4.9	4	4	4	4	4.9
5. [− Whole Numbers]	5	5	5	5	5.10	5	5	5	5	5.9
6. [× Whole Numbers]	6	6	6	6	6.10	6	6	6	6	6.11
7. [÷ Whole Numbers]	7	7	7	7	7.5	7	7	7	7	7.4
8. [Word Problems]	8	8	8	8	8.1,2,3,4	8	8	8	8	8.1,2,3,4
9. [Fractions]	9	9	9	9	9.15	9	9	9	9	9.16
10. [Place Value]	10	10	10	10	10.10	10	10	10	10	10.11
11. [Word Numbers]	11	11	11	11	11.5	11	11	11	11	11.1
12. [Money]	12	12	12	12	12.8	12	12	12	12	12.8
13. [Number Patterns]	13	13	13	13	13.5	13	13	13	13	13.5
MEASUREMENT & SPACE										
14. [Time]	14	14	14	14	14.8	14	14	14	14	14.9
15. [Measuring]	15	15	15	15	15.9	15	15	15	15	15.14
16. [Shapes]	16	16	16	16	16.9,11	16	16	16	16	16.12
17. [Location]	17	17	17	17	17.9	17	17	17	17	17.9
S & P										
18. [Statistics / Probability]	18	18	18	18	18.7,8,10	18	18	18	18	18.12
PROBLEM SOLVING										
19. [Problem Solving 1]	19	19	19	19	Hints & Solutions	19	19	19	19	Hints & Solutions
20. [Problem Solving 2]	20	20	20	20	Hints & Solutions	20	20	20	20	Hints & Solutions
21. [Problem Solving 3]	21	21	21	21	Hints & Solutions	21	21	21	21	Hints & Solutions
Total Correct										

MATHS MATE

Name: ....

Class: ....

Teacher: ....

Test Results

	Test 1	Test 2	Test 3	Test 4		Test 5	Test 6	Test 7	Test 8
NUMBER & ALGEBRA									
1. [Counting]	1	1	1	1		1	1	1	1
2. [Addition / Subtraction]	2	2	2	2		2	2	2	2
3. [Multiplication / Division]	3	3	3	3		3	3	3	3
4. [+ Whole Numbers]	4	4	4	4		4	4	4	4
5. [− Whole Numbers]	5	5	5	5		5	5	5	5
6. [× Whole Numbers]	6	6	6	6		6	6	6	6
7. [÷ Whole Numbers]	7	7	7	7		7	7	7	7
8. [Word Problems]	8	8	8	8		8	8	8	8
9. [Fractions]	9	9	9	9		9	9	9	9
10. [Place Value]	10	10	10	10		10	10	10	10
11. [Word Numbers]	11	11	11	11		11	11	11	11
12. [Money]	12	12	12	12		12	12	12	12
13. [Number Patterns]	13	13	13	13		13	13	13	13
MEASUREMENT & SPACE									
14. [Time]	14	14	14	14		14	14	14	14
15. [Measuring]	15	15	15	15		15	15	15	15
16. [Shapes]	16	16	16	16		16	16	16	16
17. [Location]	17	17	17	17		17	17	17	17
S & P 18. [Statistics / Probability]	18	18	18	18		18	18	18	18
PROBLEM SOLVING 19. [Problem Solving 1]	19	19	19	19		19	19	19	19
20. [Problem Solving 2]	20	20	20	20		20	20	20	20
21. [Problem Solving 3]	21	21	21	21		21	21	21	21
Total Correct									

MATHS MATE

Worksheet Record

Class: .... **Teacher**: ....

Worksheet Number	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

✓ - Signed by parent   *L* - Work handed in late   ✗ - Not signed by parent

MATHS MATE

Worksheet Record

Term 2

Class: .... **Teacher**: ....

Worksheet Number	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

✓ - Signed by parent L - Work handed in late   ✗ - Not signed by parent

MATHS MATE

Worksheet Record

Term 3

Class: ....   **Teacher**: ....

Worksheet Number	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

✓ - Signed by parent   *L* - Work handed in late   ✗ - Not signed by parent

     © Maths Mate Rose ~ Record Keeping Sheets

MATHS MATE

Worksheet Record

Term 4

Class: ....   **Teacher**: ....

Worksheet Number	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

✓ - Signed by parent   *L* - Work handed in late   ✗ - Not signed by parent

     © Maths Mate Rose ~ Record Keeping Sheets