

sixth edition



MATHS MATE

LEVEL
B



J. B. Wright & I. Tutos



ISBN 978 1 921535 83 3

J. B. Wright & I. Tutos

© Copyright **J. B. Wright 1995**

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means: electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the copyright owner.

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

Published and distributed by

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



New Zealand books distributed by

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

Editions: 1st Ed. - 1995, 2nd Ed. - 1998, 3rd Ed. - 2003, 4th Ed. - 2010, 5th Ed. - 2013, 6th Ed - 2020

Maths Mate Blue cover painting

Cockatoo - 2003
 Acrylic on canvas 60 × 50 cm
 by Australian artist Susan Betts - Kokata, Mirning and Wirangu.

'Cockatoo' 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.

MATHS MATE



Name:

Class:

Teacher:

Worksheet Results

Term 1

		Sheet 1	Sheet 2	Sheet 3	Sheet 4	Skill Builder links	Sheet 5	Sheet 6	Sheet 7	Sheet 8	Skill Builder links
NUMBER	1. [+ Whole Numbers to 10]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1
	2. [- Whole Numbers to 10]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1
	3. [× Whole Numbers to 12]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1
	4. [÷ Whole Numbers to 12]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1
	5. [Large Number +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1
	6. [Large Number ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.1
	7. [Decimal +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.2
	8. [Decimal ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.3
	9. [Fraction +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.1,2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.1,2
	10. [Fraction ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.1
	11. [Percentages]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.2
	12. [Decimals / Fractions / Percentages]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.2
	13. [Integers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.1
	14. [Rates / Ratios]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.2
	15. [Exponents / Square Roots]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2
	16. [Order of Operations]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.2
	17. [Exploring Numbers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2
	18. [Multiples / Factors / Primes]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.1,2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.3
	19. [Number Patterns]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.1,3,4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.2,3,4
ALGEBRA	20. [Expressions]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.1
	21. [Substitution]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.2
	22. [Equations]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.1
	23. [Rules / Graphs]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.2,3
MEASUREMENT	24. [Units of Measurement / Time]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.2
	25. [Perimeter]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.1,2
	26. [Area / Volume]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.2
SPACE	27. [Shapes]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.2
	28. [Location / Transformation]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.2
STAT.	29. [Statistics]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.2
PROB.	30. [Probability]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.2
PROBLEM SOLVING	31. [Problem Solving 1]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
	32. [Problem Solving 2]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
	33. [Problem Solving 3]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
Total Correct		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Of all the things you wear, your expression is most important.

1. [+ Whole Numbers to 10]

	1	5	3	10	7	9	2	6	8	4
+ 2										

2. [- Whole Numbers to 10]

	9	11	6	8	12	3	5	10	4	7
- 1										

3. [× Whole Numbers to 12]

	8	4	2	9	11	7	3	5	6	10
× 3										

4. [÷ Whole Numbers to 12]

	16	4	24	32	8	20	36	12	28	40
÷ 4										

5. [Large Number +,-]

$$\begin{array}{r} 1360 \\ - 230 \\ \hline \end{array}$$

10. [Fraction ×,+]

$$3 \times \frac{1}{8} =$$

16. [Order of Operations] *

$$12 + 8 - 9 =$$

11. [Percentages]

Write as a percentage:
15 out of 100.

17. [Exploring Numbers]

Which number is the largest?

- A) 3086
- B) 3806
- C) 3068

6. [Large Number ×,+]

$$\frac{840}{10} =$$

12. [Decimals / Fractions / Percentages]

What percentage of the shape is shaded?



18. [Multiples / Factors / Primes]

List all the multiples of 4 up to 20.

7. [Decimal +,-]

$$\begin{array}{r} 52.3 \\ + 26.3 \\ \hline \end{array}$$

13. [Integers]

Which location has the lowest altitude?

- A) 1000 m above sea level
Bangalore (India)
- B) 85 m below sea level
Death Valley (USA)
- C) 24 m above sea level
London (England)

19. [Number Patterns]

Complete the pattern:

6, 13, 20, 27, 34, _____, _____

8. [Decimal ×,+]

$$\begin{array}{r} 0.9 \\ \times 2 \\ \hline \end{array}$$

14. [Rates / Ratios]

Simplify the ratio 4 : 6

20. [Expressions]

Simplify
 $y + y$

9. [Fraction +,-]

$$\frac{7}{9} - \frac{3}{9} =$$

15. [Exponents / Square Roots]

Write the power as a product:

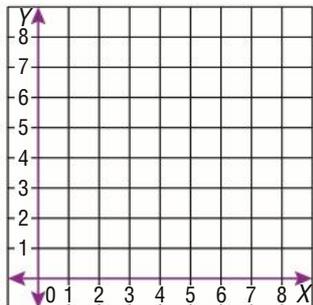
$$2^2 =$$

22. [Equations]

$$4 + \square = 10$$

23. [Rules / Graphs]

Start at the origin. Move 4 units to the right along the x -axis and then up 6 units. Plot a point. What are the coordinates of the point?



24. [Units of Measurement / Time] *

3 days = hours

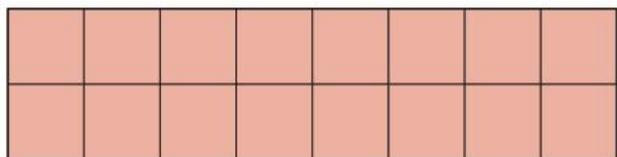
25. [Perimeter] *

Use a ruler to find the perimeter of the square in centimetres.



26. [Area / Volume]

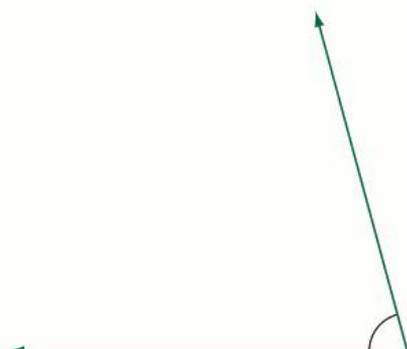
Find the area of the rectangle.



Area = 1 cm^2

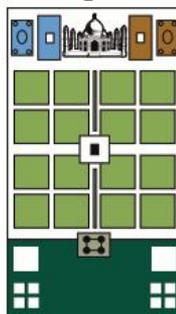
27. [Shapes]

Use a protractor to measure this angle.



28. [Location / Transformation]

From the main gateway of the Taj Mahal you face the tomb. Is the Mosque on your left or right?

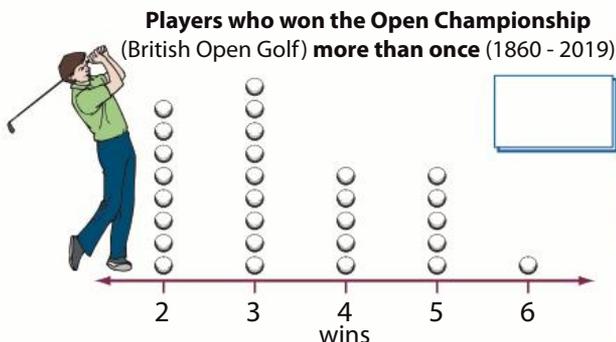


TAJ MAHAL - INDIA

- Tomb
- Main Gateway
- Garden & water displays
- Mosque
- Rest House

29. [Statistics]

How many players have won the golf Open Championship 5 times?



30. [Probability]

There are 12 white, 30 red and 18 blue Lego pieces in a box. What is the largest number of pieces you could draw from the box without taking a white piece?

31. [Problem Solving 1] *

If it takes June five minutes to cut a log into two pieces, how long would it take her to cut a log into six pieces? [Hint: Draw a diagram!]

32. [Problem Solving 2]

Move one match to make this equation correct. [Can you find all 3 solutions?]



33. [Problem Solving 3] *

Twelve students sit for an exam which has a maximum score of 100. The average of the twelve scores achieved by the students in the exam was 95. What is the minimum mark a student could have scored?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Late night TV is educational. It teaches you that you should have gone to bed earlier.

1. [+ Whole Numbers to 10]

	3	6	8	2	9	1	4	5	7	10
+ 1										

2. [- Whole Numbers to 10]

	19	11	10	18	12	13	15	16	14	17
- 10										

3. [× Whole Numbers to 12]

	4	9	11	5	7	12	10	6	8	3
× 5										

4. [+ Whole Numbers to 12]

	6	12	2	18	14	8	20	4	10	16
÷ 2										

5. [Large Number +,-]

$$\begin{array}{r} 2949 \\ - 422 \\ \hline \end{array}$$

10. [Fraction ×,+]

$$\frac{3}{10} \times 3 =$$

16. [Order of Operations] *

$$14 - 8 + 7 =$$

6. [Large Number ×,+]

$$\frac{1200}{100} =$$

11. [Percentages]

Write as a percentage:
40 out of 100.

17. [Exploring Numbers]

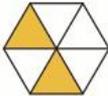
Which number is the largest?
A) 17904
B) 17490
C) 17940

7. [Decimal +,-]

$$\begin{array}{r} 5.31 \\ + 2.74 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

What fraction of the shape is shaded?



18. [Multiples / Factors / Primes]

List all the multiples of 7 up to 35.

8. [Decimal ×,+]

$$\begin{array}{r} 0.7 \\ \times 3 \\ \hline \end{array}$$

13. [Integers]

Who won the 2019 Masters? [Hint: In golf the lowest score wins.]
A) -8 J. Harding
B) +2 C. Smith
C) -13 T. Woods

19. [Number Patterns]

Complete the pattern:
3, 12, 21, 30, 39, ,

9. [Fraction +,-]

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

14. [Rates / Ratios]

Simplify the ratio 12 : 2

:

20. [Expressions]

Simplify
 $x + x + x + x$

21. [Substitution] *

If $n = 5$, find the value of $n + n + n$

15. [Exponents / Square Roots]

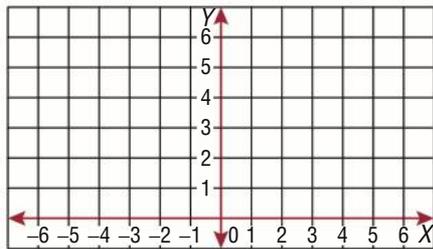
Write the product as a power:
 $4 \times 4 \times 4 \times 4 =$

22. [Equations]

$$9 + \boxed{} = 17$$

23. [Rules / Graphs]

Start at the origin. Move 5 units to the left along the x -axis and then up 4 units. Plot a point. What are the coordinates of the point?



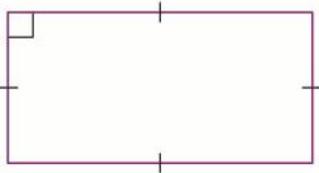
(,)

24. [Units of Measurement / Time] *

15 minutes = seconds

25. [Perimeter] *

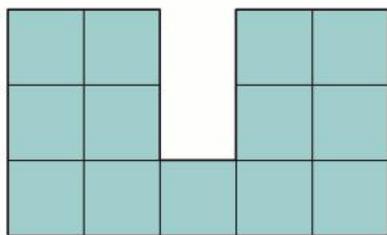
Use a ruler to find the perimeter of the rectangle in millimetres.



mm

26. [Area / Volume]

Find the area of the polygon.

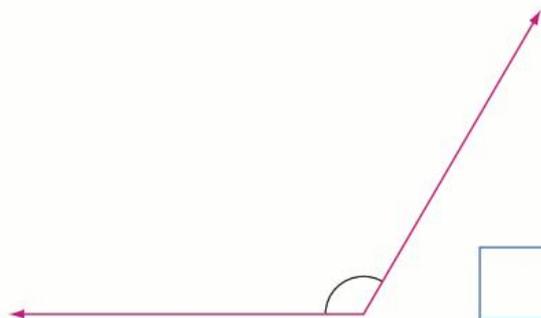


Area
= 1 cm²

cm²

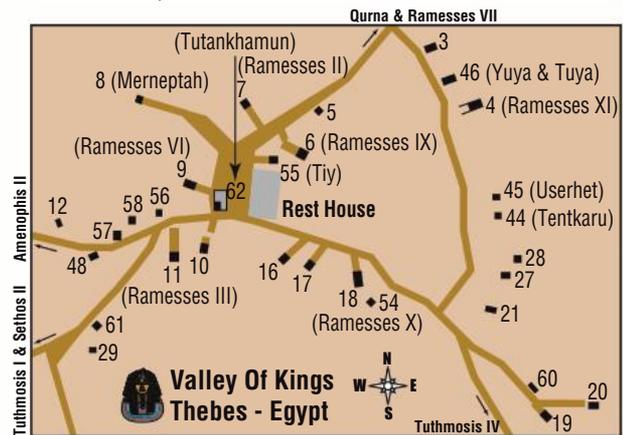
27. [Shapes]

Use a protractor to measure this angle.



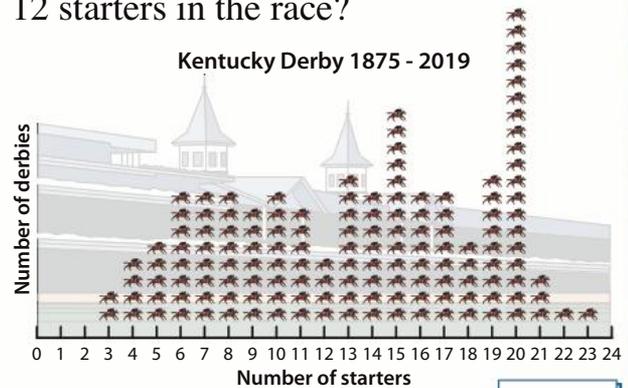
28. [Location / Transformation]

Which tomb number is west of tomb number 7, Ramesses II?



29. [Statistics]

How many times in the history of the Kentucky Derby has there been 12 starters in the race?



30. [Probability]

How many people do you need to gather to be sure that at least two of them have birthdays in the same month?

31. [Problem Solving 1] *

What two consecutive numbers add to 257?

32. [Problem Solving 2] *

What is the lowest positive integer greater than 1, which when divided by 5 or 8 leaves a remainder of 1?

33. [Problem Solving 3] *

In a set of seven numbers, the average of the first four is 15 and the average of the last three is 8. What is the average of all seven numbers?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

There are no dumb questions, only dumb answers.

1. [+ Whole Numbers to 10]

	7	2	9	4	1	10	5	6	8	3
+ 5										

2. [- Whole Numbers to 10]

	10	7	6	13	5	12	14	8	9	11
- 4										

3. [× Whole Numbers to 12]

	4	6	1	9	5	8	2	7	10	3
× 1										

4. [+ Whole Numbers to 12]

	60	110	120	90	50	30	80	70	40	100
÷ 10										

5. [Large Number +,-]

$$\begin{array}{r} 5726 \\ - 3102 \\ \hline \end{array}$$

10. [Fraction ×,+] *

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

16. [Order of Operations] *

$$48 \div 8 \div 2 =$$

11. [Percentages]

Write as a percentage:
7 out of 100.

17. [Exploring Numbers]

36 809 < 36 980
True or false?

6. [Large Number ×,+]

$$\frac{310\,000}{1000} =$$

12. [Decimals / Fractions / Percentages]

What fraction of the shape is shaded?



18. [Multiples / Factors / Primes] *

List the common multiples of 2 and 3 up to 28.

7. [Decimal +,-]

$$\begin{array}{r} 5.79 \\ + 1.40 \\ \hline \end{array}$$

13. [Integers]

Which location has the highest temperature?

- A) -179°C Titan (moon of Saturn)
- B) -60°C Mt Everest
- C) -90°C Antarctica

19. [Number Patterns]

Complete the pattern:

0.2, 1, 1.8, 2.6, 3.4, ,

8. [Decimal ×,+]

$$\begin{array}{r} \\ 3 \overline{) 0.9} \end{array}$$

14. [Rates / Ratios]

Simplify the ratio 10 : 25

 :

20. [Expressions]

Simplify
 $h + h - h$

9. [Fraction +,-]

$$\frac{3}{7} + \frac{2}{7} =$$

15. [Exponents / Square Roots]

Write the power as a product:

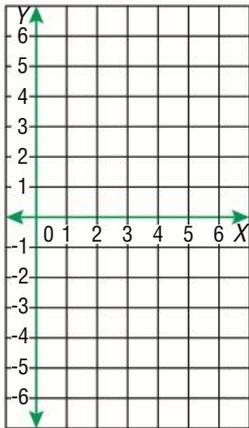
$$5^3 =$$

22. [Equations]

$$ + 15 = 22$$

23. [Rules / Graphs]

Start at the origin. Move 5 units to the right along the x -axis and then down 2 units. Plot a point. What are the coordinates of the point?



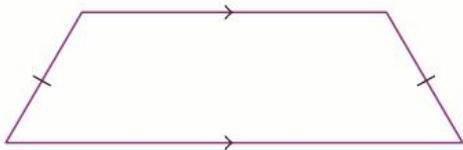
(,)

24. [Units of Measurement / Time] *

180 min = h

25. [Perimeter] *

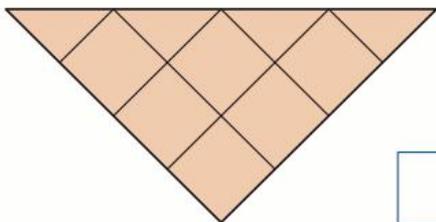
Use a ruler to find the perimeter of the trapezium in millimetres.



mm

26. [Area / Volume]

Find the area of the triangle.



Area = 1 cm^2

cm^2

27. [Shapes]

Use a protractor to measure this angle.



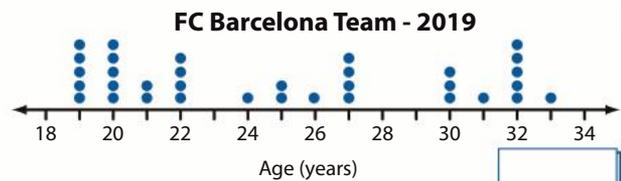
28. [Location / Transformation]

From the start, Leon walks east along Stott Tce. He takes the second street on the left and then the second street on the right. Where is Leon headed?



29. [Statistics]

How many FC Barcelona players are under the age of 23?



30. [Probability]

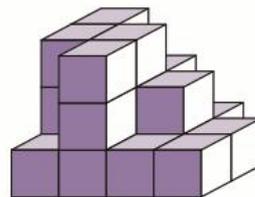
Of the 400 songs in a playlist, 150 are pop songs. How many songs do you need to play on a shuffle setting to be sure you will hear a pop song?

31. [Problem Solving 1] *

The digits 3, 4, 5, 6 and 7 are arranged to form even, five-digit numbers. What is the hundreds digit in the largest of these numbers?

32. [Problem Solving 2]

Some cubes have been removed from an array of $4 \times 3 \times 3$. How many cubes remain?



33. [Problem Solving 3] *

In how many ways can 24 be written as the sum of two different prime numbers?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Be yourself. Who else is better qualified?
Frank Gliblin

1. [+ Whole Numbers to 10]

	4	2	6	9	10	3	7	1	8	5
+ 6										

2. [- Whole Numbers to 10]

	13	15	6	14	7	9	11	8	10	12
- 5										

3. [× Whole Numbers to 12]

	2	8	1	4	5	7	6	9	3	10
× 2										

4. [+ Whole Numbers to 12]

	15	27	12	30	24	18	9	21	36	33
÷ 3										

5. [Large Number +,-]

$$\begin{array}{r} 8197 \\ - 1032 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$7 \times \frac{2}{5} =$$

16. [Order of Operations]*

$$24 \div 3 \times 4 =$$

11. [Percentages]

Write as a percentage:
23 out of 100.

17. [Exploring Numbers]

4075 > 4507
True or false?

6. [Large Number ×,+]

$$\frac{57000}{100} =$$

12. [Decimals / Fractions / Percentages]

What percentage of the shape is shaded?



18. [Multiples / Factors / Primes]*

List the common multiples of 2 and 4 up to 20.

7. [Decimal +,-]

$$\begin{array}{r} 4.26 \\ + 1.38 \\ \hline \end{array}$$

13. [Integers]

Which insect can endure the lowest temperature?

- A) -24°C cucujus beetle
- B) -51°C gall wasp larvae
- C) -10°C stink bug
- D) -184°C red flat bark beetle

19. [Number Patterns]

Complete the pattern:

$$\frac{3}{9}, \frac{4}{9}, \frac{5}{9}, \frac{6}{9},$$

8. [Decimal ×,+]

$$6 \overline{) 3.6}$$

14. [Rates / Ratios]

Simplify the ratio 5 : 90

20. [Expressions]

Simplify
 $t - t + t + t$

9. [Fraction +,-]

$$\frac{3}{8} + \frac{4}{8} =$$

15. [Exponents / Square Roots]

Write the product as a power:

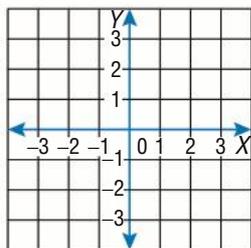
$$3 \times 3 \times 3 \times 3 \times 3 =$$

22. [Equations]

$$\square + 13 = 23$$

23. [Rules / Graphs]

Start at the origin. Move 3 units to the left along the x -axis and then down 3 units. Plot a point. What are the coordinates of the point?

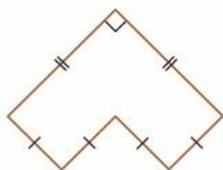


24. [Units of Measurement / Time] *

$4\frac{1}{2}$ hours = minutes

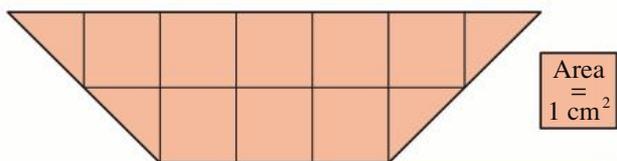
25. [Perimeter] *

Use a ruler to find the perimeter of the polygon in centimetres.



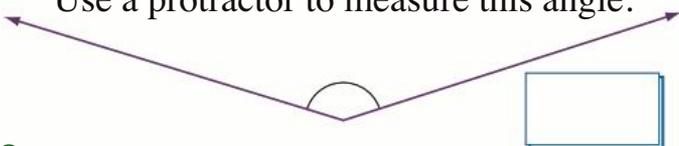
26. [Area / Volume]

Find the area of the trapezium.



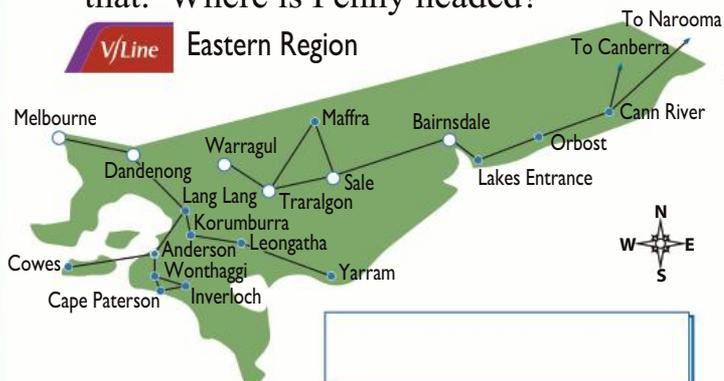
27. [Shapes]

Use a protractor to measure this angle.



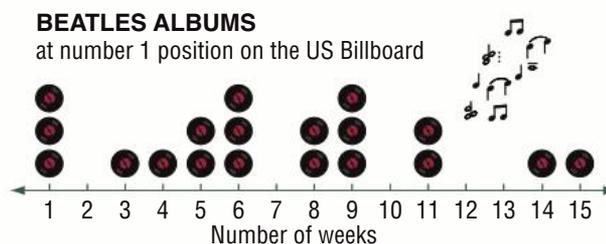
28. [Location / Transformation]

Penny travels southeast from Dandenong. Her bus turns right at the next town and right at the town after that. Where is Penny headed?



29. [Statistics]

'Sgt. Pepper's Lonely Hearts Club Band' was The Beatles album that held the number one position on the US Billboard for the longest period of time. For how long was this album at number one?



30. [Probability]

Tom has 6 blue discs and 12 red discs in his pocket. How many discs does he need to take out of his pocket to make sure he has at least 4 blue discs?

31. [Problem Solving 1] *

Each shape represents a different whole number.

$$\begin{aligned} \triangle + \triangle + \square &= 23 \\ \triangle \times \square &= 60 \end{aligned}$$

What are the values of \triangle and \square ?

32. [Problem Solving 2] *

Four students ran in the 800 m race:

- Martina finished 2 m ahead of Ling
- Yina finished ahead of Tanya
- Tanya was 2 m ahead of Martina

Who won the race?

33. [Problem Solving 3]

Fill in the missing digits.

$$\begin{array}{r} 1 \square 2 \\ \square 4 \square \\ + 971 \\ \hline 2 \square 38 \end{array}$$



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

You should never count your chickens before they're hatched - but it's a lot easier.
P.K. Shaw

1. [+ Whole Numbers to 10]

	3	10	1	7	6	8	4	5	2	9
+ 3										

2. [- Whole Numbers to 10]

	5	2	9	8	3	7	11	4	10	6
- 1										

3. [× Whole Numbers to 12]

	2	7	3	8	11	10	4	6	9	5
× 4										

4. [+ Whole Numbers to 12]

	60	15	40	25	20	45	30	35	55	50
÷ 5										

5. [Large Number +,-]

$$\begin{array}{r} 3521 \\ + 470 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$3 \times \frac{2}{3} =$$

16. [Order of Operations]*

$$12 - 2 \times 3 =$$

6. [Large Number ×,+]

$$\begin{array}{r} 561 \\ \times 10 \\ \hline \end{array}$$

11. [Percentages]

If 88% of milk is water, what percentage do the other components equal?

17. [Exploring Numbers]

In the number 2307 which digit is in the hundreds place?

7. [Decimal +,-]

$$\begin{array}{r} 68.7 \\ - 30.2 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

$$\text{Simplify } \frac{6}{9}$$

18. [Multiples / Factors / Primes]*

What is the lowest common multiple (LCM) of 5 and 15?

8. [Decimal ×,+]*

$$2.8 \times 10 =$$

13. [Integers]

Arrange in ascending order:
7, -3, 0, -9, 4

19. [Number Patterns]

Complete the pattern:

$$27, 22, 17, 12, \underline{\quad}, \underline{\quad}$$

9. [Fraction +,-]*

$$\frac{3}{11} + \frac{10}{11} =$$

14. [Rates / Ratios]

Simplify the ratio

$$30 \text{ mL} : 45 \text{ mL}$$

 :

20. [Expressions]

Simplify
 $ab + ab$

21. [Substitution]*

If $v = 8$, find the value of $3 \times v$

15. [Exponents / Square Roots]

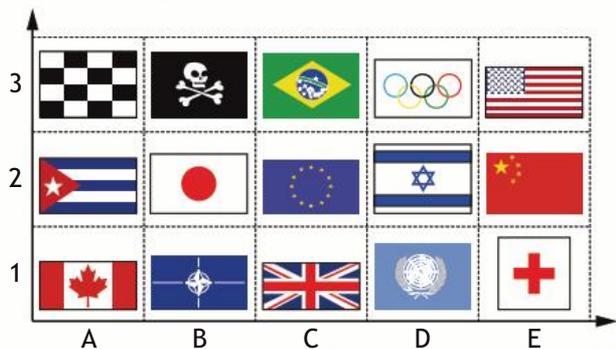
$$3^2 =$$

22. [Equations]

$$12 - \underline{\quad} = 8$$

23. [Rules / Graphs]

Which flag is located at D3?

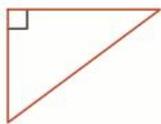


24. [Units of Measurement / Time] *

4 km = m

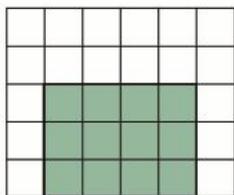
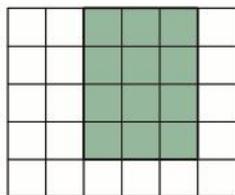
25. [Perimeter] *

Use a ruler to find the perimeter of the right-angled triangle in centimetres.



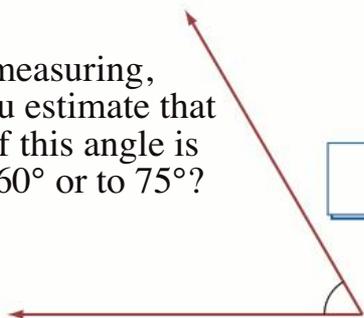
26. [Area / Volume] *

Do these rectangles have the same area?



27. [Shapes]

Without measuring, would you estimate that the size of this angle is closer to 60° or to 75° ?



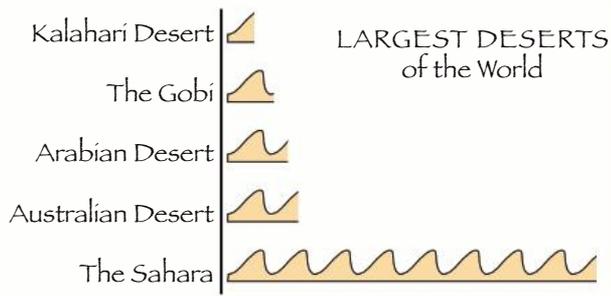
28. [Location / Transformation]

Draw all the axes of symmetry of this shape. How many axes of symmetry does this shape have?



29. [Statistics]

The Sahara is larger than the other four deserts put together. True or false?



area = 1 000 000 km²

30. [Probability]

'My neighbour's cat will die this century.'

Which expression best represents the probability of this event?

- A) impossible
- B) very unlikely
- C) very likely
- D) certain

31. [Problem Solving 1] *

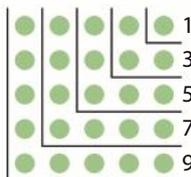
At Oxley College recess finishes at 10:50 am and is followed by two 50 minute periods before lunch. At what time does the lunch hour end?

32. [Problem Solving 2] *

Each of my children has at least two brothers and one sister. Find the least number of children I might have.

33. [Problem Solving 3] *

The numbers of dots in the five L-shapes represent the first five odd numbers. These numbers add to 25. What is the sum of the first 100 odd numbers? [Hint: These L-shapes form a square.]





Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
From small beginnings come great things.
Proverb

1. [+ Whole Numbers to 10]

	3	1	5	2	8	6	7	10	9	4
+ 4										

2. [- Whole Numbers to 10]

	4	13	7	6	12	8	5	11	9	10
- 3										

3. [× Whole Numbers to 12]

	3	6	9	1	10	4	2	8	7	5
× 6										

4. [+ Whole Numbers to 12]

	10	8	5	9	12	4	7	3	11	6
÷ 1										

5. [Large Number +,-]

$$\begin{array}{r} 8413 \\ + 383 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$2 \times \frac{1}{4} =$$

16. [Order of Operations]*

$$7 \times 6 + 8 =$$

6. [Large Number ×,+]

$$\begin{array}{r} 423 \\ \times 100 \\ \hline \end{array}$$

11. [Percentages]

Helium makes up 24% of the mass of the universe. How much of the mass of the universe is made up by other elements?

17. [Exploring Numbers]

In the number 27090 which digit is in the tens place?

7. [Decimal +,-]

$$\begin{array}{r} 58.2 \\ - 14.7 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

Simplify $\frac{4}{12}$

18. [Multiples / Factors / Primes]*

What is the lowest common multiple (LCM) of 7 and 9?

8. [Decimal ×,+]*

$$3.5 \times 100 =$$

13. [Integers]

Arrange in descending order:
-1, 6, 0, 2, -8

19. [Number Patterns]

Complete the pattern:

50, 43, 36, 29, ,

9. [Fraction +,-]*

$$\frac{4}{7} + \frac{6}{7} =$$

14. [Rates / Ratios]

Simplify the ratio
48 g : 32 g

20. [Expressions]

Simplify
 $xy + xy + xy$

21. [Substitution]*

If $y = 5$, find the value of $25 \div y$

15. [Exponents / Square Roots]

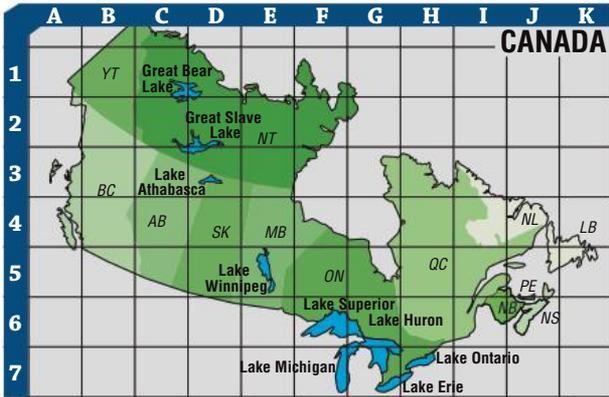
$$5^2 =$$

22. [Equations]

$$17 - \square = 10$$

23. [Rules / Graphs]

What is the grid reference of Lake Winnipeg?

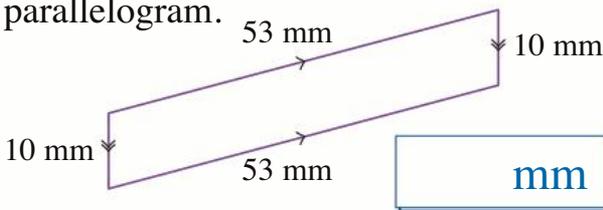


24. [Units of Measurement / Time] *

3 m = mm

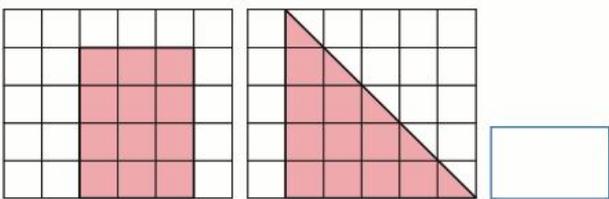
25. [Perimeter] *

Calculate the perimeter of the parallelogram.



26. [Area / Volume] *

Do the rectangle and the triangle have the same area?



27. [Shapes]

Without measuring, would you estimate that the size of this angle is closer to 110° or to 130° ?

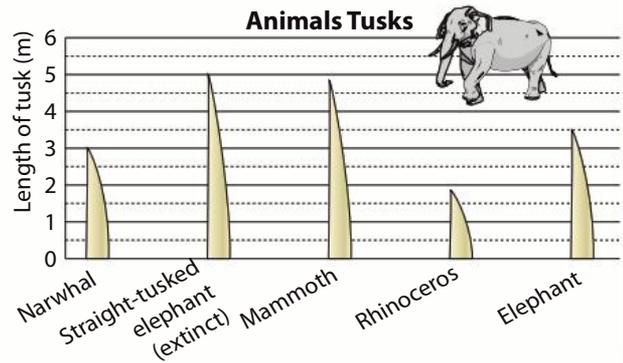
28. [Location / Transformation]

Draw all the axes of symmetry of this shape. How many axes of symmetry does this shape have?



29. [Statistics]

Which animal has a tusk closest to twice the length of a rhinoceros' tusk?



30. [Probability]

'The sun will set in the east tomorrow.' Which expression best represents the probability of this event?

- A) impossible
- B) very unlikely
- C) very likely
- D) certain

31. [Problem Solving 1] *

Draw a straight line that splits the clock face in half so that the sum of the numbers on one side of the line equals the sum of the numbers on the other side of the line.



32. [Problem Solving 2]

Complete the addition table.

+	8	6		
	13			9
		14		
9			20	
				10

33. [Problem Solving 3] *

Which of the numbers 2, 3, 4, 5 or 6, when placed as a denominator in the fraction $\frac{11}{?}$ gives a result closest to $2\frac{1}{2}$?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

The truth is always the strongest argument.
Sophocles

1. [+ Whole Numbers to 10]

	3	6	5	10	8	4	9	12	7	11
+ 2										

2. [- Whole Numbers to 10]

	8	13	16	9	11	14	7	10	15	12
- 6										

3. [× Whole Numbers to 12]

	8	2	7	10	3	4	6	1	9	5
× 7										

4. [÷ Whole Numbers to 12]

	96	24	48	64	8	80	32	72	40	56
÷ 8										

5. [Large Number +,-]

$$\begin{array}{r} 5233 \\ + 2402 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$5 \times \frac{3}{10} =$$

16. [Order of Operations]*

$$42 \div 6 - 5 =$$

6. [Large Number ×,+]

$$\begin{array}{r} 8070 \\ \times 10 \\ \hline \end{array}$$

11. [Percentages]

India has 41% of the world's poor people. What percentage of poor people live in the remainder of the world?

17. [Exploring Numbers]

What is the value of the underlined digit in the number 5972?

7. [Decimal +,-]

$$\begin{array}{r} 8.45 \\ - 3.09 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

Simplify $\frac{20}{50}$

18. [Multiples / Factors / Primes]*

What is the lowest common multiple (LCM) of 8 and 12?

8. [Decimal ×,+]*

$$0.076 \times 100 =$$

13. [Integers]

Arrange in order from coldest to hottest:
6°C, -5°C, 3°C, -8°C

19. [Number Patterns]

Complete the pattern:

7.7, 7.3, 6.9, 6.5, ,

9. [Fraction +,-]*

$$\frac{8}{5} - \frac{1}{5} =$$

14. [Rates / Ratios]

Simplify the ratio

$$60¢ : 200¢$$

20. [Expressions]

Simplify
 $wx + wx - wx$

21. [Substitution]*

If $b = 6$, find the value of $7b$

15. [Exponents / Square Roots]

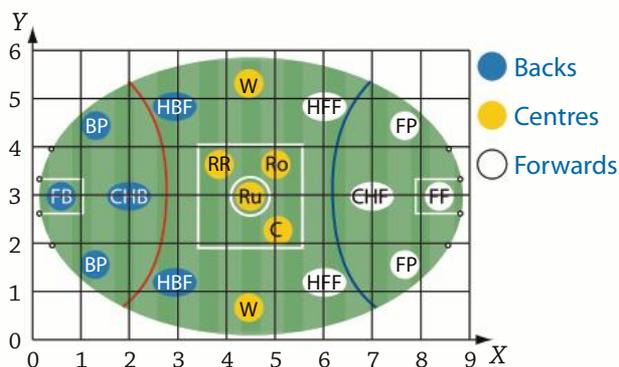
$$4^2 =$$

22. [Equations]

$$\square - 9 = 11$$

23. [Rules / Graphs]

In this AFL starting line up, what are the coordinates of the Centre Half Back (CHB)?



24. [Units of Measurement / Time] *

$5\frac{1}{2}$ m = cm

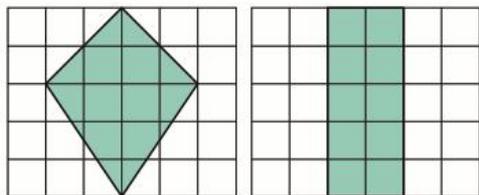
25. [Perimeter] *

Use a ruler to find the perimeter of the trapezium in millimetres.



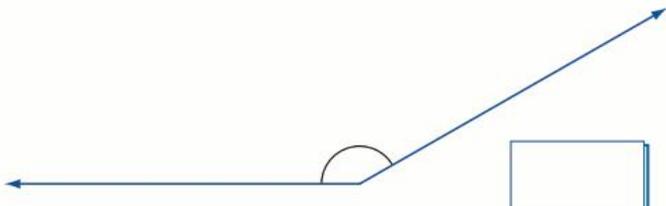
26. [Area / Volume] *

Do the kite and the rectangle have the same area?



27. [Shapes]

Without measuring, would you estimate that the size of this angle is closer to 150° or to 160°?



28. [Location / Transformation]

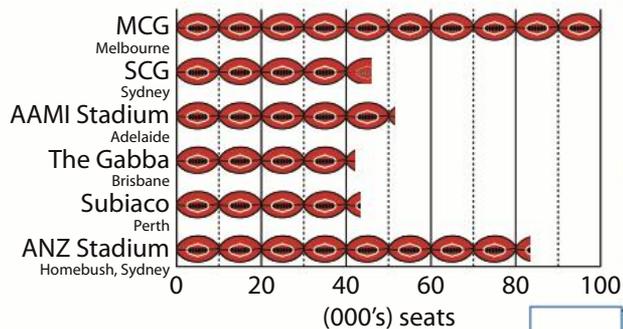
Draw all the axes of symmetry of this shape. How many axes of symmetry does this shape have?



29. [Statistics]

How many stadiums have a seating capacity between 40 000 and 50 000?

Seating capacity: Football stadiums



30. [Probability]

'The first baby born next year will be a girl.' Which expression best represents the probability of this event?

- A) impossible
- B) a 50/50 chance
- C) very likely
- D) certain

31. [Problem Solving 1] *

Nine trucks are equal in weight to six trucks and four sedans. What fraction of the weight of a truck is the weight of a sedan?

32. [Problem Solving 2] *

Barbie makes an average of 4 calls a day, 5 days a week on her mobile phone. Which phone plan is the cheapest for Barbie?

Smart Talk Phone Plans

- Plan A - \$4.00 per week plus 30¢ per call
- Plan B - \$1.60 per week plus 40¢ per call
- Plan C - \$0 per week plus 60¢ per call

33. [Problem Solving 3] *

The sum of four consecutive odd numbers is 80. What is the largest of these numbers?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Synchronism: That's when you're running late and you hope your bus is too.
P. K. Shaw

1. [+ Whole Numbers to 10]

	5	7	1	4	9	8	6	3	2	10
+ 7										

2. [- Whole Numbers to 10]

	6	8	3	10	7	9	12	4	11	5
- 2										

3. [× Whole Numbers to 12]

	2	6	4	8	5	10	11	9	3	7
× 10										

4. [÷ Whole Numbers to 12]

	66	12	54	18	48	42	60	36	30	24
÷ 6										

5. [Large Number +,-]

$$\begin{array}{r} 4031 \\ + 4126 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 925 \\ \times 1000 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 89.7 \\ - 60.8 \\ \hline \end{array}$$

8. [Decimal ×,+]*

$$1.39 \times 1000 =$$

9. [Fraction +,-]*

$$\frac{11}{3} - \frac{4}{3} =$$

10. [Fraction ×,+]*

$$\frac{1}{6} \times 8 =$$

11. [Percentages]

If 8% of children have a food allergy, what percentage of children do not have a food allergy?

12. [Decimals / Fractions / Percentages]

Simplify $\frac{10}{15}$

13. [Integers]

Arrange in order from hottest to coldest:
2°C, -1°C, 7°C, -4°C

14. [Rates / Ratios]

Simplify the ratio
30 days : 12 days

15. [Exponents / Square Roots]

$$8^2 =$$

16. [Order of Operations]*

$$4 + 20 \div 4 =$$

17. [Exploring Numbers]

What is the value of the underlined digit in the number 41603?

18. [Multiples / Factors / Primes]*

What is the lowest common multiple (LCM) of 8 and 10?

19. [Number Patterns]

Complete the pattern:

$$\frac{21}{7}, \frac{18}{7}, \frac{15}{7}, \frac{12}{7},$$

20. [Expressions]

Simplify $jk + jk - jk + jk - jk$

21. [Substitution]*

If $a = 12$, find the value of $\frac{a}{4}$

22. [Equations]

$$\square - 18 = 6$$

23. [Rules / Graphs]

Which city is located at the coordinates (9,4)?

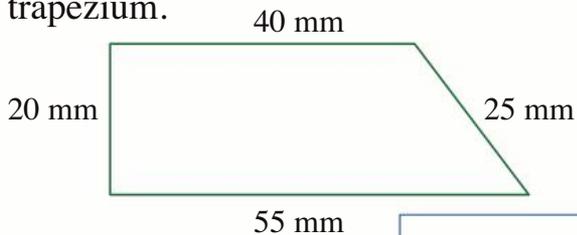


24. [Units of Measurement / Time] *

70 cm = mm

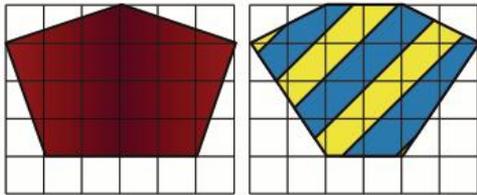
25. [Perimeter] *

Calculate the perimeter of the trapezium.


 mm

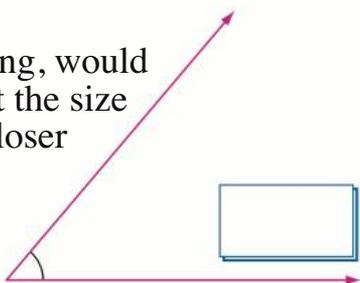
26. [Area / Volume] *

Do the knots of these neckties have the same area?



27. [Shapes]

Without measuring, would you estimate that the size of this angle is closer to 40° or to 50° ?



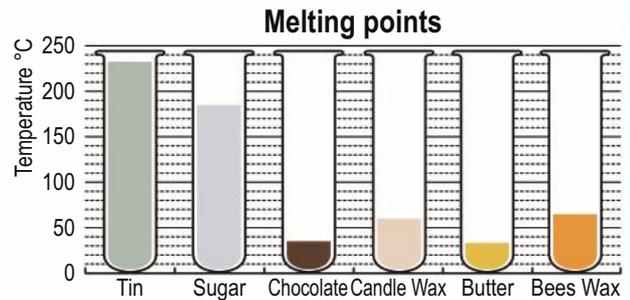
28. [Location / Transformation]

Draw all the axes of symmetry of this shape. How many axes of symmetry does this shape have?



29. [Statistics]

Which substance has a melting point close to four times that of candle wax?



30. [Probability]

'The 25th of December will be a public holiday.'

Which expression best represents the probability of this event?

- A) impossible
- B) a 50/50 chance
- C) very likely
- D) certain

31. [Problem Solving 1] *

Use each of the digits 1 to 5 to make a three-digit number and a two-digit number that have the greatest difference.

32. [Problem Solving 2]

The numbers 1, 2, 3, 4 and 5 are arranged on the grid so that every number appears exactly once in each row and column. Fill in the missing numbers.

1	2			
				1
		4		
2		5		
	5			4

33. [Problem Solving 3] *

Three clocks in the bus station give the following readings:



One clock is 20 minutes fast. At least one clock is slow. One clock is off by half an hour. What time is it?

MATHS MATE



Name:

Class:

Teacher:

Worksheet Results

Term 2

		Sheet 1	Sheet 2	Sheet 3	Sheet 4	Skill Builder links	Sheet 5	Sheet 6	Sheet 7	Sheet 8	Skill Builder links
NUMBER	1. [+ Whole Numbers to 10]	1	1	1	1	1.1	1	1	1	1	1.1
	2. [- Whole Numbers to 10]	2	2	2	2	2.1	2	2	2	2	2.1
	3. [× Whole Numbers to 12]	3	3	3	3	3.1	3	3	3	3	3.1
	4. [÷ Whole Numbers to 12]	4	4	4	4	4.1	4	4	4	4	4.1
	5. [Large Number +,-]	5	5	5	5	5.4	5	5	5	5	5.3
	6. [Large Number ×,÷]	6	6	6	6	6.4	6	6	6	6	6.3
	7. [Decimal +,-]	7	7	7	7	7.1	7	7	7	7	7.2
	8. [Decimal ×,÷]	8	8	8	8	8.1	8	8	8	8	8.2
	9. [Fraction +,-]	9	9	9	9	9.3,4	9	9	9	9	9.5
	10. [Fraction ×,÷]	10	10	10	10	10.2	10	10	10	10	10.3
	11. [Percentages]	11	11	11	11	11.3	11	11	11	11	11.3
	12. [Decimals / Fractions / Percentages]	12	12	12	12	12.3	12	12	12	12	12.5
	13. [Integers]	13	13	13	13	13.2	13	13	13	13	13.3
	14. [Rates / Ratios]	14	14	14	14	14.3	14	14	14	14	14.3
	15. [Exponents / Square Roots]	15	15	15	15	15.3	15	15	15	15	15.4
	16. [Order of Operations]	16	16	16	16	16.3	16	16	16	16	16.4
	17. [Exploring Numbers]	17	17	17	17	17.2	17	17	17	17	17.3,4
	18. [Multiples / Factors / Primes]	18	18	18	18	18.4	18	18	18	18	18.4
	19. [Number Patterns]	19	19	19	19	19.5	19	19	19	19	19.6
ALGEBRA	20. [Expressions]	20	20	20	20	20.2	20	20	20	20	20.2
	21. [Substitution]	21	21	21	21	21.3	21	21	21	21	21.4
	22. [Equations]	22	22	22	22	22.2	22	22	22	22	22.1,2
	23. [Rules / Graphs]	23	23	23	23	23.4	23	23	23	23	23.5
MEASUREMENT	24. [Units of Measurement / Time]	24	24	24	24	24.3	24	24	24	24	24.2
	25. [Perimeter]	25	25	25	25	25.2	25	25	25	25	25.3
	26. [Area / Volume]	26	26	26	26	26.3	26	26	26	26	26.4
SPACE	27. [Shapes]	27	27	27	27	27.3	27	27	27	27	27.4,5
	28. [Location / Transformation]	28	28	28	28	28.3	28	28	28	28	28.4
STAT.	29. [Statistics]	29	29	29	29	29.3	29	29	29	29	29.4,5
PROB.	30. [Probability]	30	30	30	30	30.3	30	30	30	30	30.4
PROBLEM SOLVING	31. [Problem Solving 1]	31	31	31	31	Hints & Solutions	31	31	31	31	Hints & Solutions
	32. [Problem Solving 2]	32	32	32	32	Hints & Solutions	32	32	32	32	Hints & Solutions
	33. [Problem Solving 3]	33	33	33	33	Hints & Solutions	33	33	33	33	Hints & Solutions
Total Correct											



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Better to ask the question than to remain ignorant forever. William George Plunkett

1. [+ Whole Numbers to 10]

	12	9	10	7	13	6	11	5	18	14
+ 1										

2. [- Whole Numbers to 10]

	14	7	9	11	8	10	12	5	13	16
- 4										

3. [× Whole Numbers to 12]

	7	3	8	4	1	10	5	6	9	2
× 11										

4. [÷ Whole Numbers to 12]

	28	63	21	42	56	70	35	49	77	14
÷ 7										

5. [Large Number +,-]

$$\begin{array}{r} 6739 \\ - 6284 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$\frac{1}{3} \text{ of } \$45 = \boxed{\$}$$

16. [Order of Operations]*

$$9 - (3 + 2) + 8 = \boxed{}$$

6. [Large Number ×,+]

$$\begin{array}{r} \boxed{} \\ 2 \overline{) 188} \end{array}$$

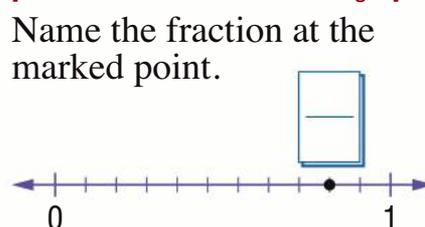
11. [Percentages]

$$70\% \text{ of } 100 = \boxed{}$$

17. [Exploring Numbers]

In the number 3.26 which digit is in the tenths place? $\boxed{}$

12. [Decimals / Fractions / Percentages]



18. [Multiples / Factors / Primes]*

Is 5 a factor of 7565? $\boxed{}$

7. [Decimal +,-]

$$\begin{array}{r} 5.76 \\ + 1.28 \\ \hline \end{array}$$

13. [Integers]

Use < or > to make a true statement.

$$0 \quad \boxed{} \quad -4$$

19. [Number Patterns]

Complete the table:

	Blinks				
men	1	2	3	4	5
women	2	4	6		

8. [Decimal ×,+]

$$\begin{array}{r} 1.5 \\ \times 7 \\ \hline \end{array}$$

14. [Rates / Ratios]*

It took Aisha 4 hours to complete a 16 km walk. What was her average speed in kilometres per hour? $\boxed{} \text{ km/h}$

20. [Expressions]

Simplify $2z + 2z = \boxed{}$

9. [Fraction +,-]*

$$2\frac{3}{5} + 1\frac{1}{5} = \boxed{}$$

15. [Exponents / Square Roots]

$$10^3 = \boxed{}$$

22. [Equations]

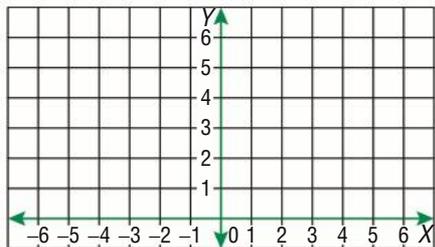
$$8 \times \boxed{} = 24$$

23. [Rules / Graphs]

Plot the following points on this Cartesian plane:

A at coordinates (5,4)

B at coordinates (-4,3)

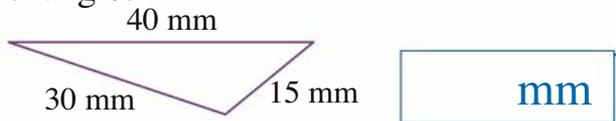


24. [Units of Measurement / Time] *

8000 g = kg

25. [Perimeter] *

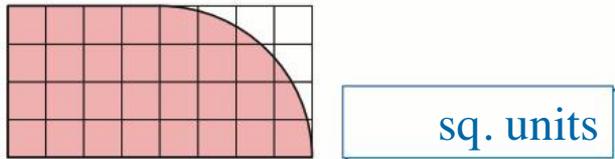
Calculate the perimeter of the scalene triangle.



26. [Area / Volume] *

Find the area of the shaded shape.

[Round to the nearest whole number.]



27. [Shapes]

Draw a square marking the equal sides and equal angles.



28. [Location / Transformation] *

Using the scale, what is the distance from Groningen to Rotterdam?

[Round off to the nearest 10 km.]



km

29. [Statistics]

How many Australian deserts measure between 100 000 and 200 000 km²?

Desert	Size (km ²)	% of Aus
Great Victoria (WA, SA)	348 750	4.5
Great Sandy (WA)	267 250	3.5
Tanami (WA, NT)	184 500	2.4
Simpson (NT, QLD, SA)	176 500	2.3
Gibson (WA)	156 000	2.0
Little Sandy (WA)	111 500	1.5
Strzelecki (SA, QLD, NSW)	80 250	1.0
Sturt Stony (SA, QLD, NSW)	29 750	0.3
Tirari (SA)	15 250	0.2
Pedirka (SA)	1 250	<0.1
Total	1 371 000	18

30. [Probability]

How many different outcomes are possible when flipping two coins?

[Complete the table.]

Possible outcomes		Coin 1	
		H	T
Coin 2	H		
	T		T,T



31. [Problem Solving 1] *

A rectangular photograph measures 3 cm wide and 4 cm long. If it was enlarged proportionally to be 12 cm long, how wide would it be?

cm

32. [Problem Solving 2] *

A date is said to be *lucky* if, when written in the format *D/M/YY*, the product of the month and the day equals the two digits of the year. How many lucky dates will there be in 2024?

[e.g. 3/4/12 is a lucky date $\Rightarrow 3 \times 4 = 12$
but 1/12/12 is not a lucky date, as the month is in *MM* format.]

33. [Problem Solving 3] *

Neon sign #1 turns on for 4 seconds then off for 2 seconds. Neon sign #2 turns on for 4 seconds then off for 6 seconds. Both signs are started at the same time and repeat their cycles endlessly. How many times per minute do they start their cycles together?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Newton's Unknown Law - A bird in the hand is safer than one overhead.
Rossiter

1. [+ Whole Numbers to 10]

	16	12	9	11	7	18	10	5	13	4
+ 6										

2. [- Whole Numbers to 10]

	15	12	8	19	10	13	16	11	14	17
- 7										

3. [× Whole Numbers to 12]

	10	6	8	11	4	9	3	5	7	12
× 2										

4. [+ Whole Numbers to 12]

	27	45	63	18	81	99	72	54	90	36
÷ 9										

5. [Large Number +,-]

$$\begin{array}{r} 1085 \\ - 762 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$\frac{1}{5} \text{ of } \$20 = \boxed{\$}$$

16. [Order of Operations]*

$$15 - (4 - 2) - 5 = \boxed{}$$

6. [Large Number ×,+]

$$\begin{array}{r} \boxed{} \\ 3 \overline{) 252} \end{array}$$

11. [Percentages]

$$45\% \text{ of } 100 = \boxed{}$$

17. [Exploring Numbers]

What is the value of the underlined digit in the number 0.519?

7. [Decimal +,-]

$$\begin{array}{r} 4.29 \\ + 1.56 \\ \hline \end{array}$$

13. [Integers]

Use < or > to make a true statement.

$$-1 \boxed{} -8$$

19. [Number Patterns]

Complete the table:

Mercedes Benz SL55

km (city)	16	24			48
litres	2	3	4	5	6

8. [Decimal ×,+]

$$\begin{array}{r} 2.6 \\ \times 4 \\ \hline \end{array}$$

14. [Rates / Ratios]*

Julie's car travelled 640 km in 8 hours. What was her car's average speed in kilometres per hour?

20. [Expressions]

Simplify $4a + 3a$

21. [Substitution]*

If $m = 9$, find the value of $2m - 6$

9. [Fraction +,-]*

$$2\frac{3}{5} - 1\frac{1}{5} = \boxed{}$$

15. [Exponents / Square Roots]

$$10^2 = \boxed{}$$

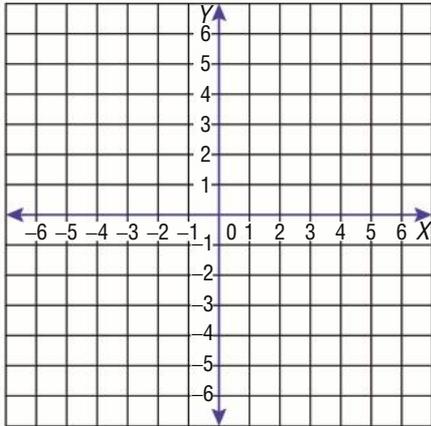
22. [Equations]

$$6 \times \boxed{} = 54$$

23. [Rules / Graphs]

Plot the following points on this Cartesian plane:

- A at coordinates (-6,4)
- B at coordinates (-3,-3)
- C at coordinates (4,0)

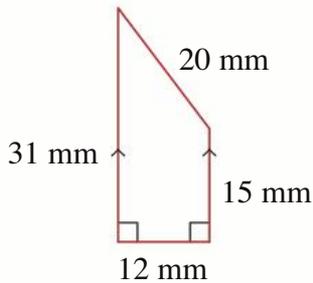


24. [Units of Measurement / Time] *

$5\frac{1}{4}$ kg = g

25. [Perimeter] *

Calculate the perimeter of the trapezium.

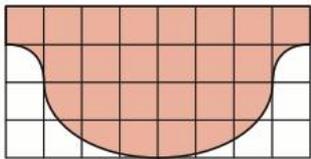


mm

26. [Area / Volume] *

Find the area of the shaded shape.

[Round to the nearest whole number.]



sq. units

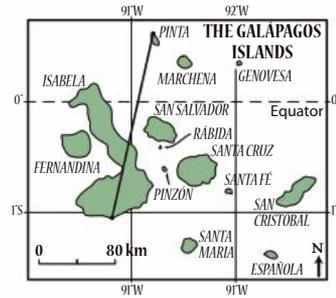
27. [Shapes]

Draw a parallelogram marking the equal sides and equal angles.



28. [Location / Transformation] *

Using the scale, what is the marked distance on the map?



[Round off to the nearest 100 km.]

km

29. [Statistics]

Which USA pencil number corresponds to a HB pencil ?

Tone	
USA #	4 3 2.5 2 1
World #	9H 8H 7H 6H 5H 4H 3H 2H H F HB B 2B 3B 4B 5B 6B 7B 8B 9B
Hardness	Hardest ← Medium → Softest

30. [Probability]

How many different outcomes are possible when spinning a spinner labelled 1, 2, 3, 4 and flipping a coin? [Complete the table.]

Possible outcomes		Spinner			
		1	2	3	4
Coin	H				
	T		T,2		



31. [Problem Solving 1] *

Jeanne Louise Calment of France lived to be the oldest human on record. Mitoyo Kawate of Japan lived 8 years less than Calment. If the sum of their ages is 236 years, how old was Calment when she died?

32. [Problem Solving 2] *

A set of scales is used to show that two lemons and seven tomatoes are required to balance one cabbage. If two lemons balance one tomato, how many tomatoes will balance one cabbage?

33. [Problem Solving 3] *

Fill in the magic square.

[Every row, column and diagonal has the same sum.]

7		1	
		8	11
	3	10	
9		15	4



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

A great pleasure in life is doing what people say you cannot do.
Walter Gagehot

1. [+ Whole Numbers to 10]

	14	17	12	9	8	11	3	10	16	5
+ 3										

2. [- Whole Numbers to 10]

	20	19	13	16	18	12	17	15	11	14
- 10										

3. [× Whole Numbers to 12]

	7	10	3	2	5	4	8	6	9	11
× 8										

4. [÷ Whole Numbers to 12]

	12	72	36	84	120	24	96	48	108	60
÷ 12										

5. [Large Number +, -]

$$\begin{array}{r} 2479 \\ - 653 \\ \hline \end{array}$$

6. [Large Number ×, ÷]

$$\begin{array}{r} \\ 5 \overline{) 1140} \end{array}$$

7. [Decimal +, -]

$$\begin{array}{r} 61.7 \\ + 28.3 \\ \hline \end{array}$$

8. [Decimal ×, ÷]

$$\begin{array}{r} 3.9 \\ \times 3 \\ \hline \end{array}$$

9. [Fraction +, -] *

$$4\frac{2}{9} - 1\frac{7}{9} =$$

10. [Fraction ×, ÷] *

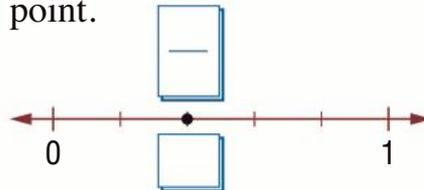
$$\frac{1}{2} \text{ of } \$50 =$$

11. [Percentages]

$$8\% \text{ of } 100 =$$

12. [Decimals / Fractions / Percentages]

Name the fraction and the decimal at the marked point.



13. [Integers]

Use < or > to make a true statement.

$$9 \quad \square \quad -3$$

14. [Rates / Ratios] *

The cruising speed of a Boeing 787 Dreamliner is 250 m/s. At this rate what distance does it travel in one minute?

 m

15. [Exponents / Square Roots]

$$10^1 =$$

16. [Order of Operations] *

$$9 + 13 - (4 + 7) =$$

17. [Exploring Numbers]

What is the value of the underlined digit in the number 0.047?

18. [Multiples / Factors / Primes] *

Is 752 divisible by 8?

19. [Number Patterns]

Complete the table:

	Rent				
Number of bedrooms	1	2	3		5
Cost per week (\$)	200		350	425	

20. [Expressions]

Simplify $6t + t$

21. [Substitution] *

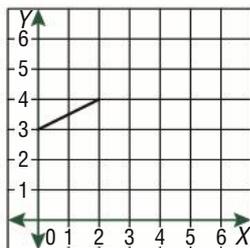
If $c = 4$, find the value of $13 - 2c$

22. [Equations]

$$\square \times 7 = 35$$

23. [Rules / Graphs]

Starting at (2,4), draw a line to (3,6) then continue to (4,4), (6,3), (4,2), (3,0), (2,2) and (0,3). What shape have you drawn?

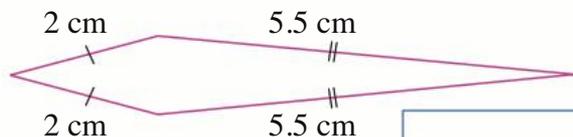


24. [Units of Measurement / Time] *

60 000 kg = tonnes

25. [Perimeter] *

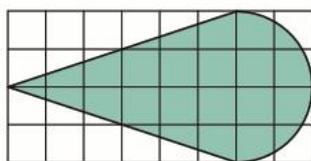
Calculate the perimeter of the kite.


 cm

26. [Area / Volume] *

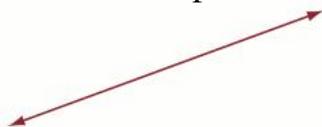
Find the area of the shaded shape.

[Round to the nearest whole number.]


 sq. units

27. [Shapes]

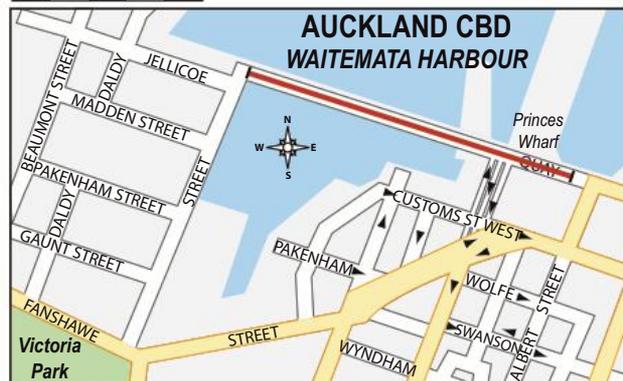
Draw a line parallel to this line.



28. [Location / Transformation] *

Using the scale, what is the marked distance on the map?

[Round off to the nearest 100 m.]


 m


29. [Statistics]

Which state or territory has the highest speed limit?

Australian Speed Limits				
State/Territory	School zone	Built-up area	Rural area	Highest speed zone
ACT	40	50	100	100
NSW	40	50	100	110
NT	40	60	110	130
QLD	40	50	100	110
SA	25	50	100	110
Tas	40	50	100	110
Vic	40	50	100	110
WA	40	50	110	110

30. [Probability]

Doug can buy a V-necked or round necked shirt in orange or blue, with a pocket or no pocket. Find the size of the sample space. [Complete the table.]

Outcomes (sample space)		
V-necked	orange	pocket
V-necked		no pocket
V-necked		

31. [Problem Solving 1] *

Write the missing operations:

5 8 - 20 5 = 9

32. [Problem Solving 2] *

A certain bacteria doubles its population every 15 minutes. How many bacteria will you end up with if you leave 10 bacteria to multiply for 3 hours?

33. [Problem Solving 3] *

On this dart board the outer ring scores as shown, the middle ring scores double and the inner ring scores 25 points. In how many ways can you score 6 using 3 darts?



[Note: 8 + 25 + 2 is not counted as different to 25 + 2 + 8 but it is different to 25 + double 4 + 2. This example shows a score of 12 + double 5 + miss = 22]



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
You ain't learnin' when you're talkin'.
Lyndon B. Johnson

1. [+ Whole Numbers to 10]

	4	7	13	9	11	5	12	8	10	6
+ 8										

2. [- Whole Numbers to 10]

	12	16	20	13	7	9	18	5	14	11
- 2										

3. [× Whole Numbers to 12]

	4	5	11	8	9	3	10	12	7	6
× 12										

4. [÷ Whole Numbers to 12]

	40	16	28	12	32	44	20	24	48	36
÷ 4										

5. [Large Number +, -]

$$\begin{array}{r} 5874 \\ - 1932 \\ \hline \end{array}$$

10. [Fraction ×, ÷] *

 $\frac{3}{4}$ of \$100 = \$

16. [Order of Operations] *

 $6 - (8 - 2) + 5 =$

11. [Percentages]

 18% of 100 =

17. [Exploring Numbers]

In which number does the digit 9 have greater value?

A) 906

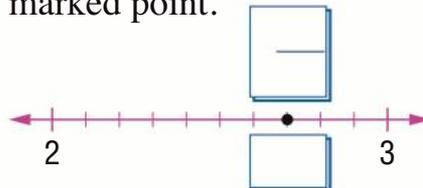
B) 3095

6. [Large Number ×, ÷]

$$\begin{array}{r} \\ 8 \overline{) 432} \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

Name the mixed number and the decimal at the marked point.



18. [Multiples / Factors / Primes] *

 Is 235 divisible by 9?

7. [Decimal +, -]

$$\begin{array}{r} 45.8 \\ + 7.4 \\ \hline \end{array}$$

13. [Integers]

Use < or > to make a true statement.

 -6 2

19. [Number Patterns]

Complete the table:

	Calories consumed (hundreds)				
adults	35	70			175
day	1	2	3	4	5

8. [Decimal ×, ÷]

$$\begin{array}{r} 4.8 \\ \times 6 \\ \hline \end{array}$$

14. [Rates / Ratios] *

The top speed of a cruise ship is 35 km/h. At this rate what distance does it travel in 12 hours?

km

20. [Expressions]

Simplify $2a + 8a$

9. [Fraction +, -] *

 $4\frac{5}{10} + \frac{1}{10} =$

15. [Exponents / Square Roots]

 $10^4 =$

21. [Substitution] *

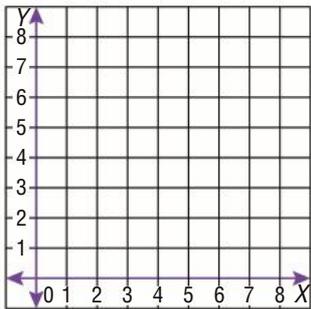
If $s = 8$, find the value of $\frac{s+1}{3}$

22. [Equations]

 $\times 4 = 48$

23. [Rules / Graphs]

Starting at (1,6), draw a line to (1,7) then continue to (8,7), (8,6), (5,6), (5,1), (4,1), (4,6) and back to (1,6). What letter have you drawn?

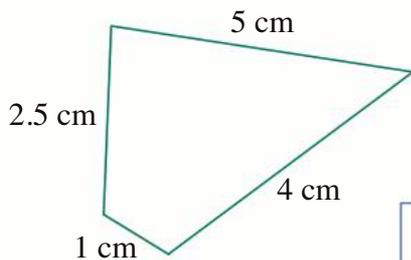


24. [Units of Measurement / Time] *

5 t = kg

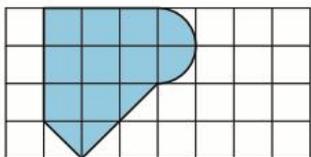
25. [Perimeter] *

Calculate the perimeter of the quadrilateral.


 cm

26. [Area / Volume] *

Find the area of the shaded shape. [Round to the nearest whole number.]


 sq. units

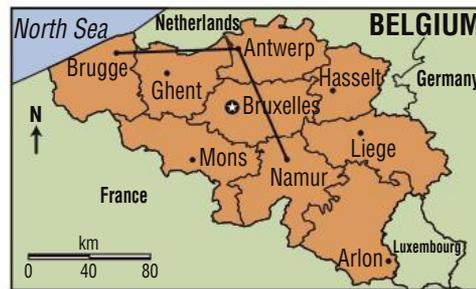
27. [Shapes]

Draw a line perpendicular to this vertical line.



28. [Location / Transformation] *

Using the scale, what is the marked distance between Brugge and Namur, via Antwerp?

 km


29. [Statistics]

Using this salinity scale, how would you classify water with a salinity of 2%?

Water Salinity			
Fresh water	Brackish water	Saline water	Brine
< 0.05 %	0.05 - 3%	3 - 5%	> 5%
< 0.5 ppt	0.5 - 30 ppt	30 - 50 ppt	> 50 ppt

ppt = parts per 1000

30. [Probability]

Po can choose a 64 GB or a 128 GB smart phone in either white, pink or black. Find the size of the sample space. [Complete the table.]

Outcomes (sample space)	
64 GB	white
64 GB	
64 GB	

31. [Problem Solving 1] *

How many different flags with 3 stripes are possible, using the colours red (R), blue (B) and yellow (Y)? Each colour can be used only once in each flag.



32. [Problem Solving 2] *

Two positive numbers have a sum of 12 and a product of 32. Find the two numbers.

33. [Problem Solving 3] *

Some digits are missing from this credit card number. If the sum of any three consecutive digits is 20, what is the value of x ?

<input type="text"/>	<input type="text"/>	5	<input type="text"/>	<input type="text"/>	<input type="text"/>	x	<input type="text"/>	<input type="text"/>	8	<input type="text"/>
----------------------	----------------------	---	----------------------	----------------------	----------------------	-----	----------------------	----------------------	---	----------------------



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Jones' Motto - Friends come and go but enemies accumulate.
Rossiter

1. [+ Whole Numbers to 10]

	11	6	12	7	15	18	3	9	14	1
+ 4										

2. [- Whole Numbers to 10]

	7	14	5	19	6	13	11	8	12	10
- 5										

3. [× Whole Numbers to 12]

	4	6	11	3	7	12	8	5	10	9
× 7										

4. [+ Whole Numbers to 12]

	9	36	18	15	33	27	21	24	12	30
÷ 3										

5. [Large Number +,-]

$$\begin{array}{r} 1065 \\ + 283 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$3 \div \frac{1}{2} = \boxed{}$$

16. [Order of Operations]*

$$(16 - 8) \div 2 = \boxed{}$$

6. [Large Number ×,+]

$$\begin{array}{r} 75 \\ \times 4 \\ \hline \end{array}$$

11. [Percentages]*

$$10\% \text{ of } \$300 = \boxed{\$ }$$

17. [Exploring Numbers]

Express in numerals:
four thousand and sixty-two $\boxed{}$

7. [Decimal +,-]

$$\begin{array}{r} 4.12 \\ - 3.57 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

Complete the equivalent fractions:
 $\frac{2}{3} = \frac{24}{}$

18. [Multiples / Factors / Primes]

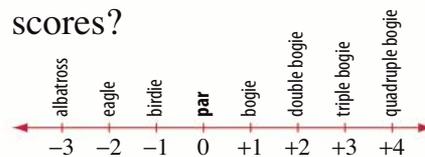
List all the factors of 15 in ascending order.
 $\boxed{}$

8. [Decimal ×,+]

$$\begin{array}{r} \\ 8 \overline{) 0.48} \\ \hline \end{array}$$

13. [Integers]

If Inbee Park scores an eagle and Tiger Woods scores a bogie, what is the difference between their scores?



19. [Number Patterns]

Complete the pattern:
3, 6, 12, 24, $\boxed{}, \boxed{}$

9. [Fraction +,-]*

$$3 - \frac{3}{5} = \boxed{}$$

14. [Rates / Ratios]*

The slowest water animal is the seahorse. It moves at 16 metres per hour. At this rate how far does it move in 3 hours?

$$\boxed{} \text{ m}$$

20. [Expressions]

Simplify $c + 2c + 3c$ $\boxed{}$

21. [Substitution]*

If $m = -2$, find the value of $3 - m$ $\boxed{}$

15. [Exponents / Square Roots]

$$\sqrt{9} = \boxed{}$$

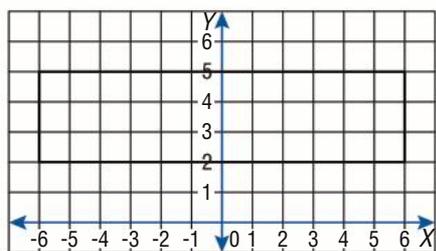
22. [Equations]

$$\boxed{} - 6 = 19$$

23. [Rules / Graphs]

Which ordered pair lies within this rectangle?

- A) (-2,1) B) (-6,6) C) (-5,4)

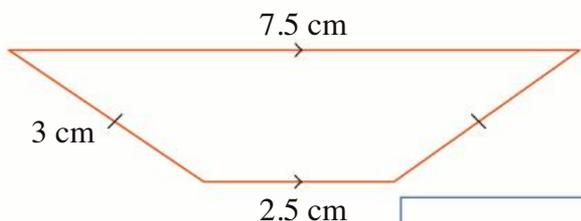


24. [Units of Measurement / Time] *

3000 cm = m

25. [Perimeter] *

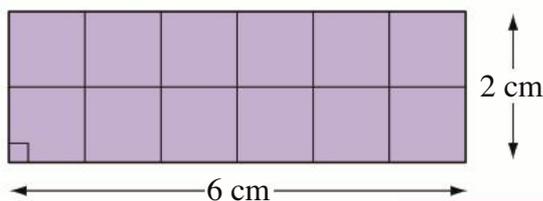
Calculate the perimeter of the trapezium.



cm

26. [Area / Volume] *

Using Area = length × width, find the area of the rectangle.



cm²

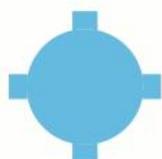
27. [Shapes]

Circle the triangle that is acute-angled.



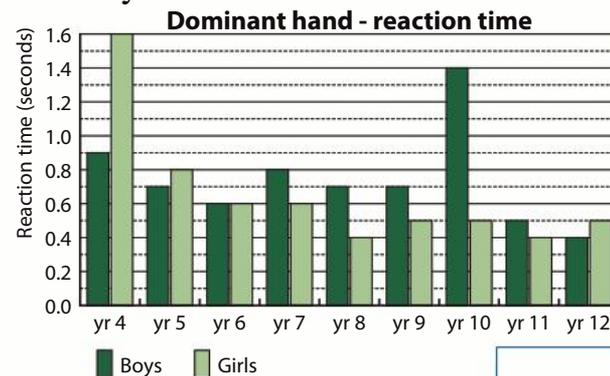
28. [Location / Transformation]

By how many degrees must this shape be rotated to first match the original position?



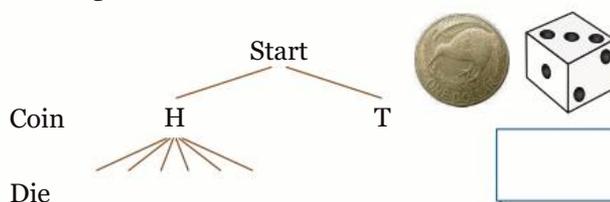
29. [Statistics]

In how many of the school years shown do girls have a quicker reaction time than boys?



30. [Probability]

How many different outcomes are possible when flipping a coin and rolling a die? [Complete the tree diagram.]



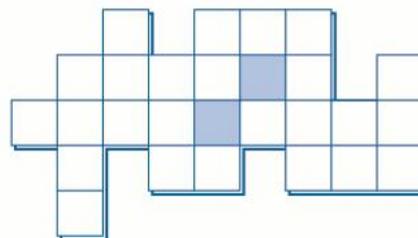
31. [Problem Solving 1] *

Isabelle wanted to arrange her football cards in pairs but was one card short. She tried to arrange them by fives and was still one card short. She finally arranged her cards by sevens. What is the least number of cards she could have had?

32. [Problem Solving 2]

Fill in the cross number puzzle using the following numbers:

- 2 digits:** 26 69 91
3 digits: 312 602 621 882 895
4 digits: 1958 1964 1989 1990 1993



33. [Problem Solving 3] *

Find the number of palindromes between 10 000 and 99 999 that are divisible by 25.

[A *palindrome* is a number that reads the same forwards and backwards, such as 22 or 91 319]



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Doing beats stewing.
Arnold Glasgow

1. [+ Whole Numbers to 10]

	2	6	3	4	10	8	6	5	9	7
+ 10										

2. [- Whole Numbers to 10]

	13	16	7	12	4	9	18	10	11	5
- 3										

3. [× Whole Numbers to 12]

	7	3	2	6	10	8	4	5	9	11
× 5										

4. [÷ Whole Numbers to 12]

	96	80	88	40	48	64	32	56	24	72
÷ 8										

5. [Large Number +, -]

$$\begin{array}{r} 2105 \\ + 7635 \\ \hline \end{array}$$

6. [Large Number ×, ÷]

$$\begin{array}{r} 38 \\ \times 6 \\ \hline \end{array}$$

7. [Decimal +, -]

$$\begin{array}{r} 7.36 \\ - 4.98 \\ \hline \end{array}$$

8. [Decimal ×, ÷]

$$\begin{array}{r} \\ 7 \overline{) 0.63} \end{array}$$

9. [Fraction +, -] *

$$4 - \frac{2}{7} =$$

10. [Fraction ×, ÷] *

$$2 \div \frac{1}{5} =$$

11. [Percentages] *

$$60\% \text{ of } \$400 =$$

 \$

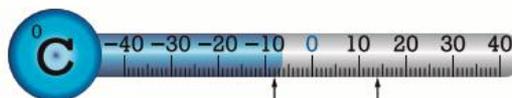
12. [Decimals / Fractions / Percentages]

Complete the equivalent fractions:

$$\frac{\boxed{}}{32} = \frac{7}{8}$$

13. [Integers]

What is the difference between Mexicali's lowest temperature and McMurdo's highest temperature?



Mexicali (Mexico) McMurdo (Antarctica)

 °C

14. [Rates / Ratios] *

The slowest bird is the American woodcock. It flies at 8 km/h. At this rate how far does it fly in 7 hours?

 km

15. [Exponents / Square Roots]

$$\sqrt{25} =$$

16. [Order of Operations] *

$$3 \times (2 + 4) =$$

17. [Exploring Numbers]

Express in numerals: ten thousand, four hundred and thirty-nine

18. [Multiples / Factors / Primes]

List all the factors of 28 in ascending order.

19. [Number Patterns]

Complete the pattern:

$$1, 3, 9, 27, \boxed{}, \boxed{}$$

20. [Expressions]

Simplify $2m + 4m + m$

21. [Substitution] *

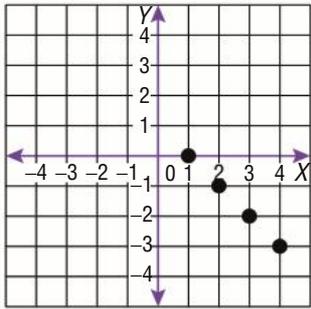
If $k = -4$, find the value of $k + 7$

22. [Equations]

$$9 \times \boxed{} = 72$$

23. [Rules / Graphs]

These dots, if joined, would form a line. Another point on this line has an x -coordinate of -3 . What is the y -coordinate of this point?

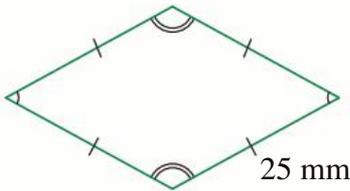


24. [Units of Measurement / Time] *

2500 mm = cm

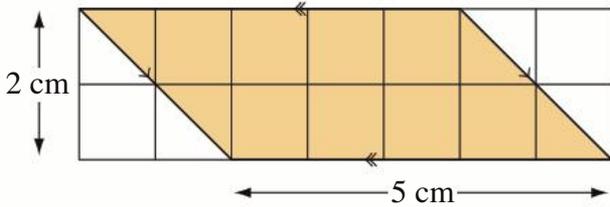
25. [Perimeter] *

Calculate the perimeter of the rhombus.



26. [Area / Volume] *

Using Area = base \times height, find the area of the parallelogram.



27. [Shapes]

Circle the obtuse angle.



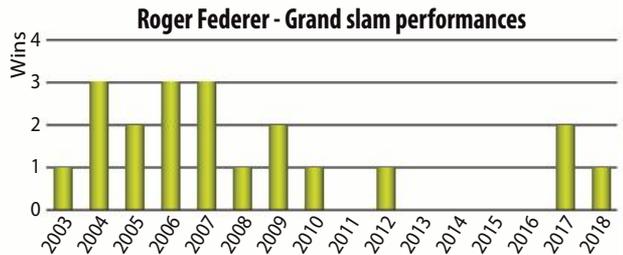
28. [Location / Transformation]

By how many degrees must the big hand of this clock rotate to show exactly 10:40?



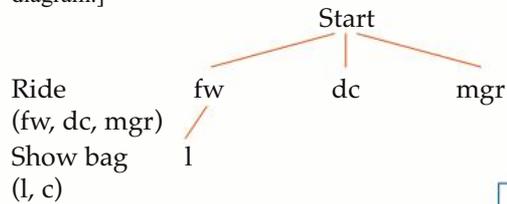
29. [Statistics]

In which year did Federer win his tenth grand slam?



30. [Probability]

At the show you can choose one ride (ferris wheel, dodgem cars, merry-go-round) and one show bag (licorice, comics). How many different combinations are possible? [Complete the tree diagram.]



31. [Problem Solving 1] *

Jake remembered that the three digits in his locker combination were 3, 5 and 7, but he forgot the order of the numbers. What is the maximum number of combinations he must check in order to open his locker?

32. [Problem Solving 2] *

Maurice averaged 79 points for 6 tests. How many points must he score in the next test to raise his average to 80?

33. [Problem Solving 3]

The five neighbouring houses on a street are painted five different colours: yellow, purple, blue, red and green.

- The blue house is not in the middle.
- The distance from the blue house to the red house is the same as the distance from the blue house to the green house.
- The red house is the first neighbour to the west of the yellow house.

What is the order of the houses?





Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

There's one thing to be said for inviting trouble: it generally accepts.
Mae Maloo

1. [+ Whole Numbers to 10]

	8	12	4	7	5	9	6	13	1	10
+ 7										

2. [- Whole Numbers to 10]

	15	9	12	18	16	14	17	13	10	11
- 9										

3. [× Whole Numbers to 12]

	12	10	11	5	6	8	4	7	3	9
× 3										

4. [+ Whole Numbers to 12]

	48	12	36	60	18	24	42	6	30	54
÷ 6										

5. [Large Number +, -]

$$\begin{array}{r} 4362 \\ + 1574 \\ \hline \end{array}$$

10. [Fraction ×, ÷] *

$$2 \div \frac{2}{7} =$$

15. [Exponents / Square Roots]

$$\sqrt{49} =$$

16. [Order of Operations] *

$$80 \div (4 + 1) =$$

17. [Exploring Numbers]

Write the number 6400 in words.

6. [Large Number ×, ÷]

$$\begin{array}{r} 198 \\ \times 4 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages]

Complete the equivalent fractions:

$$\frac{3}{5} = \frac{36}{\quad}$$

18. [Multiples / Factors / Primes]

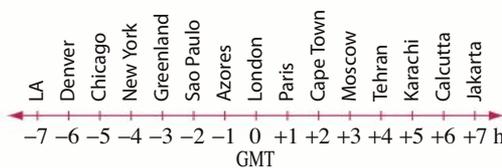
List all the factors of 12 in ascending order.

7. [Decimal +, -]

$$\begin{array}{r} 24.5 \\ - 18.9 \\ \hline \end{array}$$

13. [Integers]

What is the time difference in hours between Greenland and Calcutta?



19. [Number Patterns]

Complete the pattern:

$$\frac{1}{27}, \frac{1}{9}, \frac{1}{3}, 1, \quad, \quad$$

8. [Decimal ×, ÷]

$$4 \overline{) 2.84}$$

20. [Expressions]

Simplify $p + p + 3p$

21. [Substitution] *

If $w = -6$, find the value of $2w + 5$

9. [Fraction +, -] *

$$3 - 1\frac{2}{3} =$$

14. [Rates / Ratios] *

A domestic rabbit can run at 56 km/h. At this rate how far can it run in a quarter of an hour?

 km

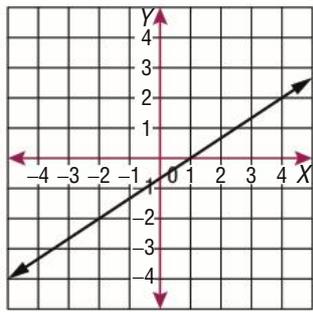
22. [Equations]

$$22 + \quad = 40$$

23. [Rules / Graphs]

Which point lies on the line graphed below?

E(0,1) F(2,3) G(-2,-2) H(-4,-3)

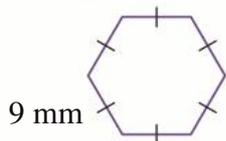


24. [Units of Measurement / Time] *

12 000 m = km

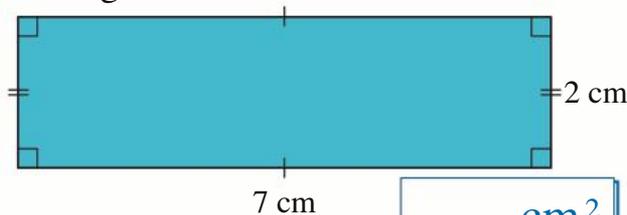
25. [Perimeter] *

Calculate the perimeter of the regular hexagon.


 mm

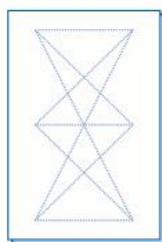
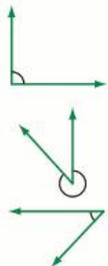
26. [Area / Volume] *

Using $A = lw$ find the area of the rectangle.


 cm²

27. [Shapes]

Match each angle to its description:



acute

right

reflex

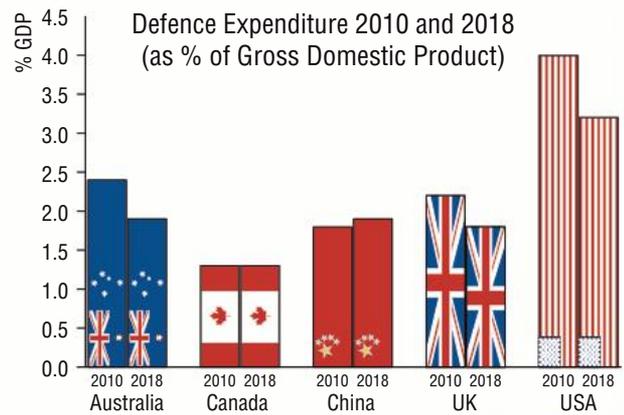
28. [Location / Transformation]

By how many degrees must this shape be rotated to first match the original position?



29. [Statistics]

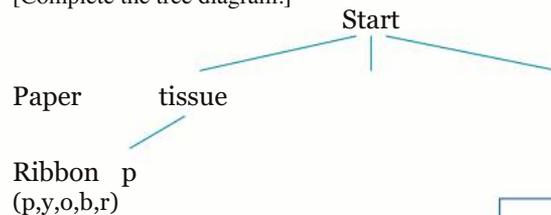
Of the countries shown, how many decreased their defence expenditure from 2010 to 2018?



30. [Probability]

How many different outcomes are possible if you can choose one kind of wrapping paper (tissue, cellophane, foil) and one coloured ribbon (pink, yellow, orange, blue, red)?

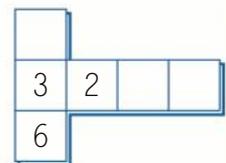
[Complete the tree diagram.]



31. [Problem Solving 1]

Fill in the spaces so that, when folded, the net will form a standard die.

[On a standard die, opposite sides add to 7]

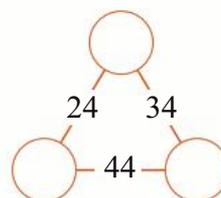


32. [Problem Solving 2] *

If you have 10¢, 20¢ and \$1 coins, in how many ways can you make

33. [Problem Solving 3] *

Enter a number in each circle so that the number on each line equals the sum of the numbers at each end.





Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Sattinger's Law - It works better if you plug it in.
Rossiter

1. [+ Whole Numbers to 10]

	15	12	10	6	14	9	8	13	11	7
+ 5										

2. [- Whole Numbers to 10]

	19	14	16	12	17	11	20	15	18	13
- 8										

3. [× Whole Numbers to 12]

	5	6	3	12	10	7	11	4	9	8
× 4										

4. [÷ Whole Numbers to 12]

	121	33	77	99	55	33	88	132	110	44
÷ 11										

5. [Large Number +,-]

$$\begin{array}{r} 3721 \\ + 5069 \\ \hline \end{array}$$

10. [Fraction ×,+] *

$$4 \div \frac{4}{9} =$$

17. [Exploring Numbers]

Write the number 23 000 in words.

6. [Large Number ×,+]

$$\begin{array}{r} 670 \\ \times 5 \\ \hline \end{array}$$

11. [Percentages] *

$$25\% \text{ of } \$2.00 =$$

 ¢

18. [Multiples / Factors / Primes]

List all the factors of 30 in ascending order.

7. [Decimal +,-]

$$\begin{array}{r} 65.1 \\ - 9.7 \\ \hline \end{array}$$

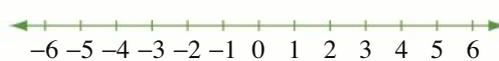
12. [Decimals / Fractions / Percentages]

Complete the equivalent fractions:

$$\frac{3}{\square} = \frac{18}{30}$$

13. [Integers]

How many units between -5 and 4?



19. [Number Patterns]

Complete the pattern:

$$\frac{1}{8}, \frac{1}{2}, 2, 8, \square, \square$$

8. [Decimal ×,+]

$$9 \overline{) 1.89}$$

14. [Rates / Ratios] *

A duck flies 150 km in two and a half hours. What is its average speed in kilometres per hour?

 km/h

20. [Expressions]

Simplify $5j + j - 2j$

9. [Fraction +,-] *

$$5 - 2\frac{5}{6} =$$

15. [Exponents / Square Roots]

$$\sqrt{36} =$$

21. [Substitution] *

If $h = -8$, find the value of $4h$

16. [Order of Operations] *

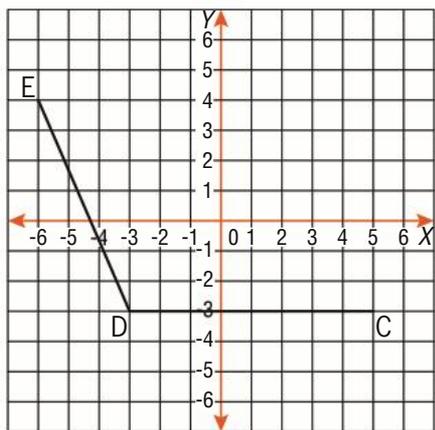
$$5 \times (12 - 9) =$$

22. [Equations]

$$\square \times 5 = 70$$

23. [Rules / Graphs]

What are the coordinates of point F that will make CDEF a parallelogram?

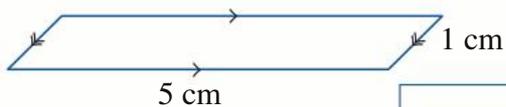


24. [Units of Measurement / Time] *

4.6 m = mm

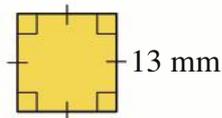
25. [Perimeter] *

Calculate the perimeter of the parallelogram.



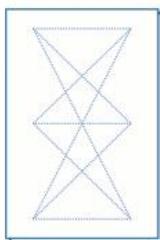
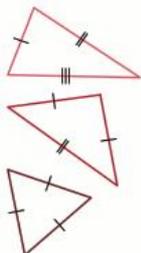
26. [Area / Volume] *

Using $A = l^2$ find the area of the square.



27. [Shapes]

Match each triangle to its description:



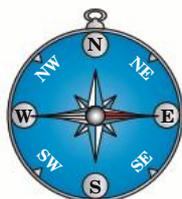
isosceles

equilateral

scalene

28. [Location / Transformation]

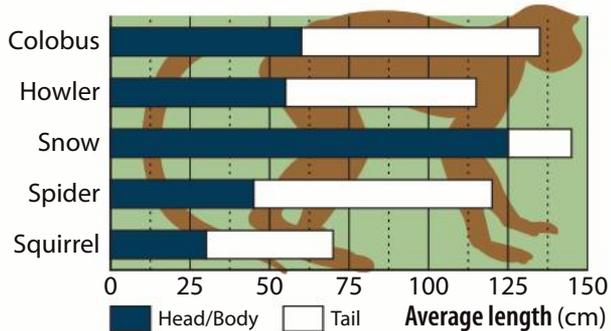
This compass shows that you are facing east. How many degrees anticlockwise must you turn to face north?



29. [Statistics]

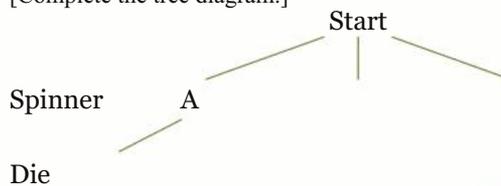
Relative to their head and body length, which of these monkeys has the longest tail?

Average Head/Body and Tail Lengths - Selected Monkey Breeds



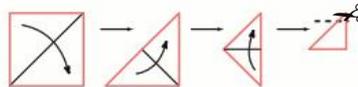
30. [Probability]

How many different outcomes are possible when spinning a spinner labelled A, B, C and rolling a die?
[Complete the tree diagram.]



31. [Problem Solving 1]

A square piece of paper is folded and then cut as shown:



Draw the shape of the paper when it is unfolded.

32. [Problem Solving 2] *

When Veronica visited Great Britain, one British pound was worth US\$1.40, while AU\$1.00 was worth US\$0.70. In this case, how many AU\$ was a British pound worth?

33. [Problem Solving 3] *

A certain type of water lily spreads to double the area it covers every year. Ten years after being planted in our lake these water lilies cover a quarter of its surface. How many more years will it be before they cover the entire surface of the lake?

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	1. [+ Whole Numbers to 10]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1
	2. [- Whole Numbers to 10]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1
	3. [× Whole Numbers to 12]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1
	4. [÷ Whole Numbers to 12]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1
	5. [Large Number +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3
	6. [Large Number ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.7
	7. [Decimal +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.2
	8. [Decimal ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.2
	9. [Fraction +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.1,2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.3
	10. [Fraction ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.5
	11. [Percentages]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.5
	12. [Decimals / Fractions / Percentages]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.6,7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.8,9
	13. [Integers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.5
	14. [Rates / Ratios]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.5,6
	15. [Exponents / Square Roots]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2
	16. [Order of Operations]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.2,4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.4
	17. [Exploring Numbers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.6,7
	18. [Multiples / Factors / Primes]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.5,6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.7
	19. [Number Patterns]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.8
ALGEBRA	20. [Expressions]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.4
	21. [Substitution]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.5,6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.7
	22. [Equations]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.3
	23. [Rules / Graphs]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.7
MEASUREMENT	24. [Units of Measurement / Time]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.1
	25. [Perimeter]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.2
	26. [Area / Volume]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.6
SPACE	27. [Shapes]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.5,6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.7,8
	28. [Location / Transformation]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.5
STAT.	29. [Statistics]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.6,7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.8
PROB.	30. [Probability]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.5
PROBLEM SOLVING	31. [Problem Solving 1]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
	32. [Problem Solving 2]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
	33. [Problem Solving 3]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
You can't get anywhere unless you start.

1. [+ Whole Numbers to 10]

	11	15	17	12	6	14	19	3	18	10
+ 6										

2. [- Whole Numbers to 10]

	19	15	27	11	12	14	26	13	20	28
- 10										

3. [× Whole Numbers to 12]

	4	7	10	6	12	5	9	11	8	3
× 12										

4. [÷ Whole Numbers to 12]

	70	35	77	63	56	21	14	42	49	28
÷ 7										

5. [Large Number +,-]

$$\begin{array}{r} 4238 \\ - 709 \\ \hline \end{array}$$

10. [Fraction ×,-]

$$\frac{1}{2} \times \frac{1}{5} =$$

16. [Order of Operations] *

$$1 + 12 \div 4 \times 2 =$$

6. [Large Number ×,÷]

$$\begin{array}{r} 85 \\ \times 30 \\ \hline \end{array}$$

11. [Percentages] *

$$80\% \text{ of } 60 =$$

17. [Exploring Numbers]

Round 706 to the nearest ten.

7. [Decimal +,-]

$$\begin{array}{r} 65.21 \\ + 7.09 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages] *

Write 0.37 as a percentage.

18. [Multiples / Factors / Primes]

List all the common factors of 24 and 54.

8. [Decimal ×,÷]

$$\begin{array}{r} 0.41 \\ \times 4 \\ \hline \end{array}$$

13. [Integers] *

Amersham station is the highest station in the London Tube at 147 m above sea level. Waterloo station is the lowest station at 21 m below sea level. What is the height difference between the two stations?

 m

19. [Number Patterns]

Complete the pattern:

$$486, 162, 54, 18, \underline{\quad}, \underline{\quad}$$

9. [Fraction +,-] *

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

14. [Rates / Ratios]

Simplify the ratio

$$4 : 22 : 30$$

 : :

20. [Expressions]

Write as an expression:
The sum of z and twelve

21. [Substitution] *

If $x = 3$ and $y = 8$, find the value of $x + y$

15. [Exponents / Square Roots]

$$\sqrt{64} =$$

22. [Equations]

$$\frac{1}{3} \text{ of } \square = 12$$

23. [Rules / Graphs]

Complete the table for this rule:

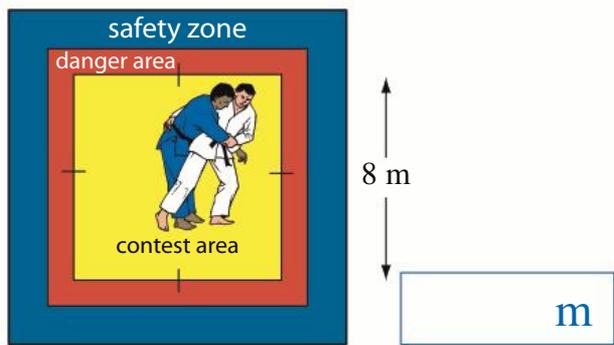
Number of days (x)	Number of pages read ($50x$)
2	$50 \times 2 = 100$
4	
6	
8	
10	
12	

24. [Units of Measurement / Time] *

3 L = mL

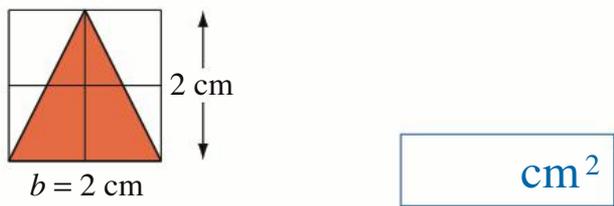
25. [Perimeter] *

What is the perimeter of the contest area on the judo mat?



26. [Area / Volume] *

Using $\text{Area} = \frac{1}{2} \times \text{base} \times \text{height}$, find the area of the triangle.



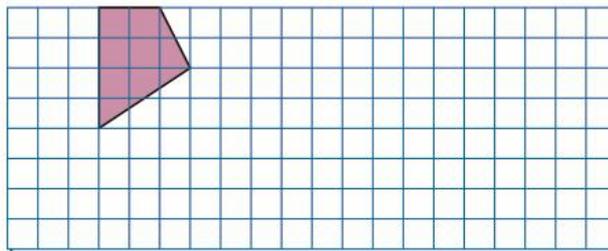
27. [Shapes]

I am a quadrilateral with all my sides equal in length. None of my angles equals 90° . What am I?

- A) a parallelogram B) a rectangle
C) a rhombus D) a square

28. [Location / Transformation]

Translate this shape 5 units right and 4 units down.



29. [Statistics]

This table shows the atomic number of 7 chemical elements. Find the median of these atomic numbers.

Chemical Elements - atomic number

Helium (He)	Neon (Ne)	Sodium (Na)	Iron (Fe)	Copper (Cu)	Silver (Ag)	Uranium (U)
2	10	11	26	29	47	92

30. [Probability] *

A spinner is divided into 6 equal parts. When it is spun once, what is the probability of spinning a 4?

[Give your answer as a fraction.]



31. [Problem Solving 1] *

I think of a number, multiply it by 4, subtract 6 and then divide by 5. If the answer is 10, what is the original number?

32. [Problem Solving 2] *

How many numbers are equal to the sum of two odd, one-digit numbers?

33. [Problem Solving 3] *

Six is called a *perfect number* because its factors (not including 6) add up to itself, i.e. $1 + 2 + 3 = 6$.

Find all the perfect numbers between 20 and 30.



Name:

Due Date: / /

Parent's Signature: _____

QUOTE OF THE WEEK

Cheerfulness is contagious, but don't wait to catch it from others. Be a carrier!

1. [+ Whole Numbers to 10]

	17	13	9	16	8	14	22	15	20	11
+ 8										

2. [- Whole Numbers to 10]

	18	9	10	14	25	13	27	22	11	26
- 7										

3. [× Whole Numbers to 12]

	8	5	3	12	9	10	4	6	7	11
× 9										

4. [÷ Whole Numbers to 12]

	50	90	110	70	120	60	80	40	100	30
÷ 10										

5. [Large Number +,-]

$$\begin{array}{r} 5164 \\ - 3357 \\ \hline \end{array}$$

6. [Large Number ×,÷]

$$\begin{array}{r} 256 \\ \times 50 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 27.51 \\ + 8.39 \\ \hline \end{array}$$

8. [Decimal ×,÷]

$$\begin{array}{r} 8.06 \\ \times 7 \\ \hline \end{array}$$

9. [Fraction +,-] *

$$\frac{4}{9} + \frac{2}{9} =$$

10. [Fraction ×,÷]

$$\frac{1}{4} \times \frac{1}{6} =$$

11. [Percentages] *

$$30\% \text{ of } 250 =$$

12. [Decimals / Fractions / Percentages] *

Write 0.8 as a percentage.

13. [Integers] *

Tutankhamun's tomb was discovered in 1922. If he was buried in 1323 BC, for how long was he buried before discovery?

 years

14. [Rates / Ratios]

Simplify the ratio

$$25 : 35 : 50$$

 : :

15. [Exponents / Square Roots]

$$\sqrt{81} =$$

16. [Order of Operations] *

$$5 \times 3 - 3 \times 2 =$$

17. [Exploring Numbers]

Round 1289 to the nearest hundred.

18. [Multiples / Factors / Primes] *

List all the common factors of 36 and 48.

19. [Number Patterns]

Complete the pattern:

224, 112, 56, 28, ,

20. [Expressions]

Write as an expression:

A number that is equal to twice as much as x

21. [Substitution] *

If $w = 6$ and $x = 0$, find the value of wx

22. [Equations]

$$\frac{1}{4} \text{ of } \text{ } = 15$$

23. [Rules / Graphs]

Complete the table for this rule:

Number of minutes (x)	Phone bill in cents (20x)
0.5	$20 \times 0.5 = 10$
1.0	
1.5	
2.0	
2.5	
3.0	

24. [Units of Measurement / Time] *

15 L = mL

25. [Perimeter] *

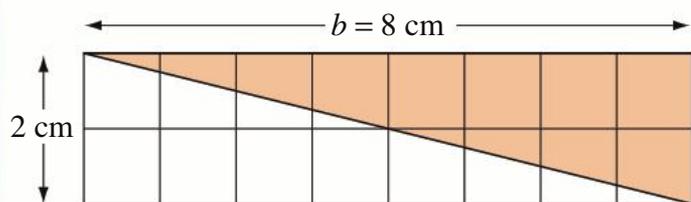
What is the perimeter of a rectangular five dollar note?



mm

26. [Area / Volume] *

Using $\text{Area} = \frac{1}{2} \times \text{base} \times \text{height}$, find the area of the triangle.



cm^2

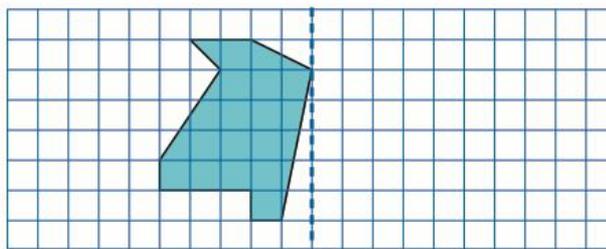
27. [Shapes]

I am a quadrilateral with all my sides equal in length. My diagonals intersect at right angles, and are equal in length. What am I?

- A) a parallelogram B) a rhombus
C) a rectangle D) a square

28. [Location / Transformation]

Redraw this shape after reflecting it in the vertical dotted line.



29. [Statistics]

This table shows the number of stations on some of Europe's monorails. Find the mode and range of the data.

Europe's Monorails (Number of Stations)									
2	2	2	2	2	3	3	5	6	20

mode = range =

30. [Probability] *

When this spinner is spun once, what is the probability of spinning a vowel?

[Give your answer as a fraction in simplest form.]



31. [Problem Solving 1] *

The sum of four consecutive whole numbers is 54. What are the four numbers?

32. [Problem Solving 2] *

A bottle of wine costs \$10. The wine is worth \$9 more than the bottle. How much is the bottle worth?

33. [Problem Solving 3] *

A baby wriggled so much that weighing him at the clinic was a problem. So the doctor held the baby and stood on a scale. Then the nurse held the baby and stood on the scale. Then the doctor held the nurse who held the baby and stood on the scale. The three results were 78 kg, 69 kg and 142 kg respectively. What was the weight of the baby?

kg



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
With persistence comes success.
Napoleon Hill

1. [+ Whole Numbers to 10]

	16	21	3	18	7	19	14	10	2	25
+ 4										

2. [- Whole Numbers to 10]

	10	21	7	24	13	18	25	16	22	9
- 6										

3. [× Whole Numbers to 12]

	1	9	5	6	2	3	7	10	8	4
× 11										

4. [+ Whole Numbers to 12]

	72	36	90	108	45	63	27	54	99	81
÷ 9										

5. [Large Number +,-]

$$\begin{array}{r} 2075 \\ - 1908 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 147 \\ \times 200 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 9.74 \\ + 26.8 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} 5.107 \\ \times 4 \\ \hline \end{array}$$

9. [Fraction +,-] *

$$\frac{5}{12} + \frac{4}{12} =$$

10. [Fraction ×,+]

$$\frac{1}{3} \times \frac{2}{5} =$$

11. [Percentages] *

$$40\% \text{ of } 70 =$$

12. [Decimals / Fractions / Percentages] *

A female lion does 90% of the hunting. Write this percentage as a decimal.

13. [Integers] *

In Antarctica the highest recorded temperature is 17°C and the lowest is -89°C. What is the temperature difference?

 °C

14. [Rates / Ratios]

Simplify the ratio

$$18 : 30 : 54$$

 : :

15. [Exponents / Square Roots]

$$\sqrt{1} =$$

16. [Order of Operations] *

$$6 \times 3 - (9 - 5) =$$

17. [Exploring Numbers]

Round 843 to the nearest ten.

18. [Multiples / Factors / Primes] *

What is the highest common factor (HCF) of 24 and 45?

19. [Number Patterns]

Complete the pattern:

$$5000, 1000, 200, \quad \boxed{\quad}, \quad \boxed{\quad}$$

20. [Expressions]

Write as an expression:

The product of seven and d

21. [Substitution] *

If $n = -9$ and $m = 3$, find the value of $n - m$

22. [Equations]

$$\frac{1}{6} \times \boxed{\quad} = 4$$

23. [Rules / Graphs]

Complete the table for this rule:

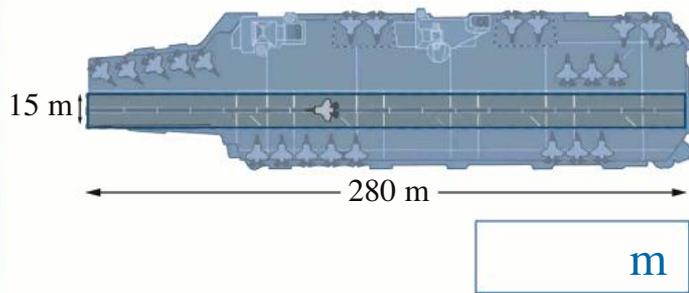
No of weeks (x)	Number of practice hours (8x)
1	$8 \times 1 = 8$
2	
3	
4	
5	
6	

24. [Units of Measurement / Time] *

7000 mL = L

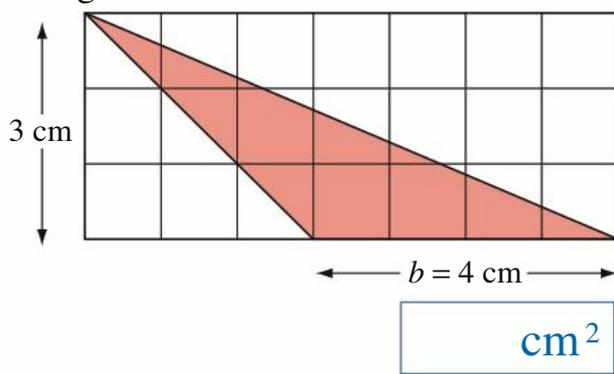
25. [Perimeter] *

What is the perimeter of the rectangular narrow runway on the aircraft carrier HMS Queen Elizabeth?



26. [Area / Volume] *

Using $A = \frac{1}{2}bh$ find the area of the triangle.



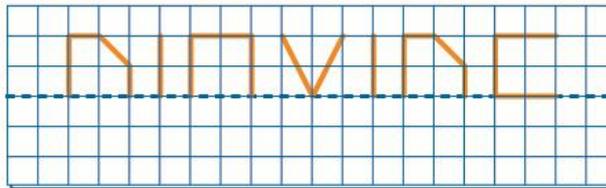
27. [Shapes]

I am a 2-dimensional shape with two sides perpendicular. I have an angle sum of 180 degrees. What am I?

- A) a square
 - B) a right-angled triangle
 - C) an isosceles triangle
 - D) an equilateral triangle
-

28. [Location / Transformation]

Redraw this diagram after reflecting it in the horizontal dotted line.



29. [Statistics] *

Agnes selects scrabble letters that spell the 7 letter word 'phantom'. Find the mean (average) value of her tiles.

Value of Scrabble tile selection

A	N	O	T	M	P	H
1	1	1	1	3	3	4

30. [Probability] *

When a die is rolled, what is the probability of rolling a number smaller than 6? [Give your answer as a fraction.]



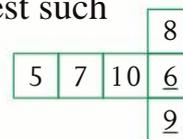
31. [Problem Solving 1] *

Bernard counted 8 posts along the side of the road. If the posts were 20 metres apart, how far is it from the first post to the last? [Hint: Draw a diagram.]

m

32. [Problem Solving 2] *

This net can be folded to form a cube. The numbers on the three faces meeting at any vertex can be multiplied together. What is the smallest such product for the vertices of this cube?



33. [Problem Solving 3] *

In my block of 100 flats, a painter is kept employed by painting one flat each month from January to November. The flats are painted in the same order and he takes a holiday every December. If my flat was last painted in August 2020, when will it be next painted?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Nothing ventured, nothing gained.
William Shakespeare

1. [+ Whole Numbers to 10]

	11	8	17	13	2	16	20	9	15	14
+ 9										

2. [- Whole Numbers to 10]

	17	4	15	21	18	9	16	7	12	10
- 3										

3. [× Whole Numbers to 12]

	7	6	1	8	2	3	10	9	4	5
× 6										

4. [+ Whole Numbers to 12]

	48	24	56	80	32	40	72	64	96	88
÷ 8										

5. [Large Number +,-]

$$\begin{array}{r} 9058 \\ - 4273 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 2136 \\ \times 400 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 78.4 \\ + 60.96 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} 2.035 \\ \times 6 \\ \hline \end{array}$$

9. [Fraction +,-] *

$$\frac{9}{10} - \frac{3}{10} =$$

10. [Fraction ×,+]

$$\frac{2}{5} \times \frac{3}{7} =$$

11. [Percentages] *

$$15\% \text{ of } 80 =$$

12. [Decimals / Fractions / Percentages] *

The adult human brain represents 2% of total body weight. Write this percentage as a decimal.

13. [Integers] *

The entrance to the Great Pyramid (Egypt) is 17 m above ground. What is the vertical distance from the entrance to the base of the pyramid which is 31 m underground?

 m

14. [Rates / Ratios]

Simplify the ratio

$$40 : 16 : 80$$

 : :

15. [Exponents / Square Roots]

$$\sqrt{121} =$$

16. [Order of Operations] *

$$1 + (8 - 3) \times 2 =$$

17. [Exploring Numbers]

Round 32550 to the nearest thousand.

18. [Multiples / Factors / Primes] *

What is the highest common factor (HCF) of 27 and 36?

19. [Number Patterns]

Complete the pattern:

$$243, 81, 27, 9, 3, \quad \square, \quad \square$$

20. [Expressions]

Write as an expression:
A number that is equal to five less than b

21. [Substitution] *

If $s = 21$ and $t = -7$, find the value of $s \div t$

22. [Equations]

$$\frac{1}{10} \times \square = 7$$

23. [Rules / Graphs]

Complete the table for this rule:

Dollars earned (x)	Dollars saved ($x \div 4$)
20	$20 \div 4 = 5$
40	
60	
80	
100	
120	

24. [Units of Measurement / Time] *

800 mL = L

25. [Perimeter] *

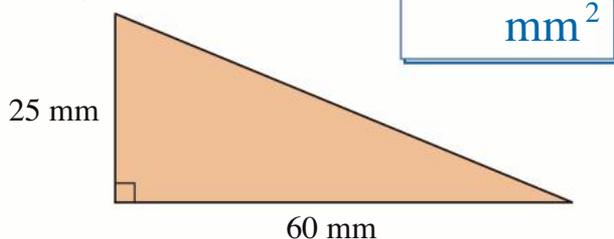
What is the perimeter of the Pentagon (Arlington, Virginia, USA), the world's largest office building by floor area?



m

26. [Area / Volume] *

Using $A = \frac{1}{2}bh$ find the area of the triangle.



mm²

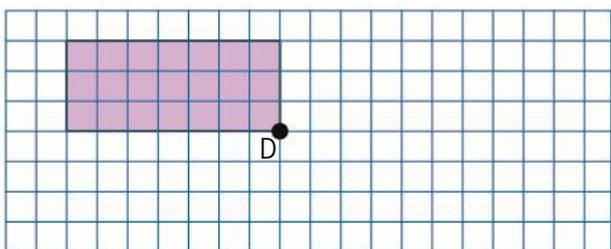
27. [Shapes]

I am a 2-dimensional shape with all my sides of equal length. I have an angle sum of 180 degrees. What am I?

- A) a square
- B) a right-angled triangle
- C) an isosceles triangle
- D) an equilateral triangle

28. [Location / Transformation]

Redraw this rectangle after rotating it 180° about the point D.



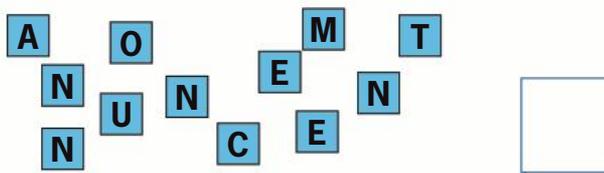
29. [Statistics] *

This table shows a 5-day temperature forecast for Auckland. Find the mean (average) of the low temperatures.

Auckland 5-day Forecast					
	MON	TUE	WED	THUR	FRI
High	17°C	17°C	18°C	17°C	16°C
Low	10°C	11°C	11°C	10°C	8°C
Jun 28 2020					

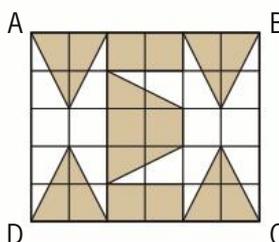
30. [Probability] *

If a letter tile is chosen at random, find the probability of choosing the letter N. [Give your answer as a fraction in simplest form.]



31. [Problem Solving 1] *

What fraction of the rectangle ABCD is shaded? [Give your answer as a fraction in simplest form.]



32. [Problem Solving 2] *

A sports store buys new tennis racquets for \$200 each from the manufacturer, and marks up the price by 60%. A racquet was sold during a 25% off sale. How much profit did the shop make on that racquet?

\$

33. [Problem Solving 3] *

Deduce the 3-digit secret number.

[A cow means a number is correct in value but in the wrong position. A bull indicates that a number is both correct in value and in the correct position. i.e. 2 cows and 1 bull would indicate that all three numbers were correct but two were in the wrong positions.]

Guess	Secret Number	Cows	Bulls
1st	7 5 1	1	1
2nd	5 7 4	1	1
3rd	3 1 7	1	1



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Things generally work out best for those who make the best of the way things work out.

1. [+ Whole Numbers to 10]

	10	21	14	16	19	22	5	17	18	23
+ 3										

2. [- Whole Numbers to 10]

	21	13	29	6	24	17	25	18	12	30
- 4										

3. [× Whole Numbers to 12]

	4	2	3	6	9	1	10	8	7	5
× 8										

4. [÷ Whole Numbers to 12]

	84	132	108	60	144	120	72	36	48	96
÷ 12										

5. [Large Number +,-]

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

6. [Large Number ×,+]

$$\begin{array}{r} 3\ 7 \\ \times\ 5\ 2 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 4\ 2.0\ 3 \\ -\ 0.0\ 8 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} \\ 5 \overline{) 4\ 1.5} \end{array}$$

9. [Fraction +,-] *

$$2\frac{4}{5} + 2\frac{3}{5} = \boxed{}$$

10. [Fraction ×,+] *

$$\frac{3}{4} \div 3 =$$

11. [Percentages] *

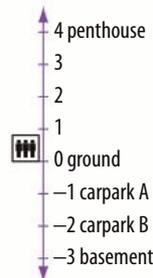
In a store a \$40 dress is marked '25% off'. What is the discount on the dress?

12. [Decimals / Fractions / Percentages]

Three quarters of Canadians live within a short distance of the USA border. Write this fraction as a decimal.

13. [Integers]

Starting on the ground floor Ella went up 4 floors and down 7. At which level does Ella finish?



14. [Rates / Ratios] *

6 : 11 is equivalent to 10 : 22
True or false?

15. [Exponents / Square Roots]

$$20^2 =$$

16. [Order of Operations] *

$$30 \div (5 + 10) \times 5 =$$

17. [Exploring Numbers]

Place in ascending order: 0.68, 0.08, 0.86, 0.806

18. [Multiples / Factors / Primes]

List all the prime numbers between 1 and 10.

19. [Number Patterns]

Complete the pattern:

1, 2, 4, 7, 11, ,

20. [Expressions]

Choose the like terms:

3x, y, 2x

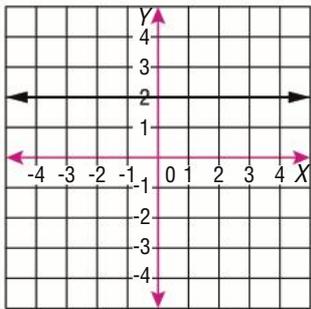
21. [Substitution] *

If $g = 9$ and $h = 2$, find the value of $g - h - 4$

22. [Equations]

$$\frac{1}{8} \text{ of } \boxed{} = 4$$

23. [Rules / Graphs]



The line above shows:

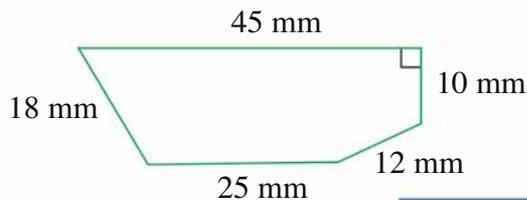
- A) All points where $x = 2$
- B) All points where $y = 2$
- C) All points where $y = x + 2$

24. [Units of Measurement / Time] *

5 weeks = days

25. [Perimeter] *

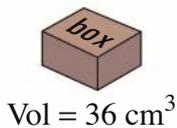
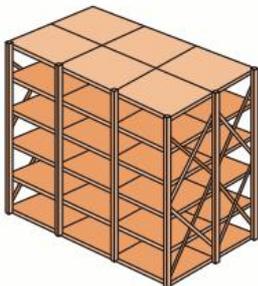
Calculate the perimeter of the polygon.



mm

26. [Area / Volume] *

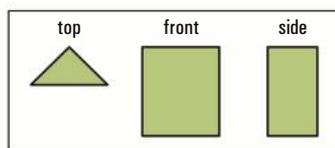
If 30 boxes can fit inside these shelves, find the total volume of the boxes.



cm³

27. [Shapes]

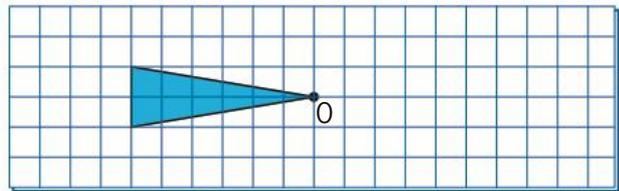
Which solid has these top, front and side views?



- A) B)
- C)

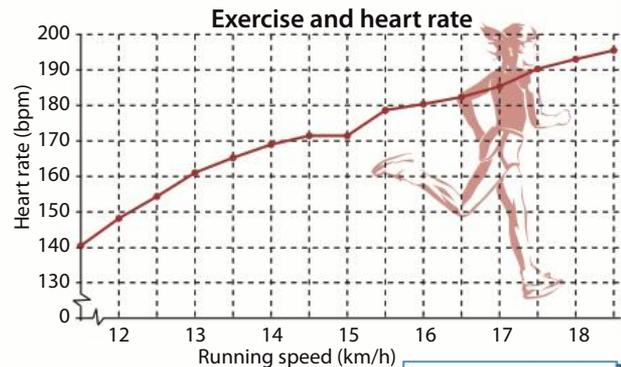
28. [Location / Transformation]

Redraw this triangle after rotating it 180° about the point O and then translating it 3 units to the right.



29. [Statistics]

If Di's heart rate is 180 beats per minute, what is her running speed likely to be?



km/h

30. [Probability] *

A bag contains 6 white, 2 black and 10 green marbles. If a marble is chosen at random, find the probability that it is a white marble.

[Give your answer as a fraction in simplest form.]

31. [Problem Solving 1] *

A dealer bought an article for \$7, sold it for \$8, bought it back for \$9, and then sold it for \$10. How much profit did he make?

32. [Problem Solving 2] *

A square piece of paper is folded in half. The perimeter of the resulting rectangle is 24 cm. Find the area of the original square paper.

cm²

33. [Problem Solving 3]

Use each number between 1 and 9 once to complete the equations in this square.

[In each row and column the order of operations must be followed.]

	÷		-	1	2
+		+		×	
	+		-		9
×		+		÷	
	×		÷		20
44		17		2	



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Tell me and I'll forget; show me and I may remember; involve me and I'll understand.
Chinese Proverb

1. [+ Whole Numbers to 10]

	23	15	18	21	7	16	19	14	22	20
+ 7										

2. [- Whole Numbers to 10]

	6	27	19	23	21	10	28	15	24	12
- 5										

3. [× Whole Numbers to 12]

	4	6	7	12	9	3	11	8	5	10
× 3										

4. [÷ Whole Numbers to 12]

	6	18	14	8	20	12	22	24	16	10
÷ 2										

5. [Large Number +, -]

$$\begin{array}{r} 8561 \\ + 7254 \\ \hline \end{array}$$

6. [Large Number ×, ÷]

$$\begin{array}{r} 105 \\ \times 46 \\ \hline \end{array}$$

7. [Decimal +, -]

$$\begin{array}{r} 64.15 \\ - 6.37 \\ \hline \end{array}$$

8. [Decimal ×, ÷]

$$\begin{array}{r} \\ 3 \overline{) 17.1} \end{array}$$

9. [Fraction +, -] *

$$1\frac{5}{6} + \frac{1}{6} =$$

10. [Fraction ×, ÷] *

$$\frac{1}{6} \div 5 =$$

11. [Percentages] *

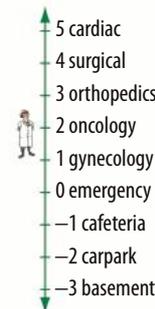
In a store a \$15 book is marked '10% off'. What is the discount on the book?

12. [Decimals / Fractions / Percentages]

Write 0.7 as a fraction.

13. [Integers]

A nurse from the oncology ward goes down 4 levels and then up 6. Where does she finish?



14. [Rates / Ratios] *

Which ratio is equivalent to 7 : 8?

- A) 28 : 40
- B) 21 : 24
- C) 49 : 64

15. [Exponents / Square Roots]

$$40^2 =$$

16. [Order of Operations] *

$$7 + 3 \times (4 + 6) =$$

17. [Exploring Numbers]

Place in descending order: 0.035, 0.53, 0.05, 0.305

18. [Multiples / Factors / Primes]

What is the prime number just before 97?

19. [Number Patterns]

Complete the pattern:

6, 7, 12, 13, 18, ,

20. [Expressions]

Choose the like terms:

3h, i, 4i

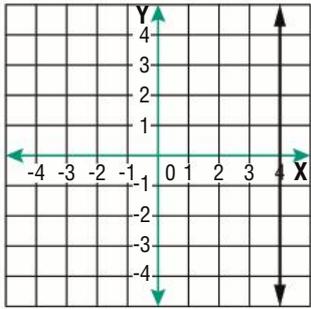
21. [Substitution] *

If $p = 3$ and $q = 10$, find the value of $17 + p - q$

22. [Equations] *

$$\frac{3}{5} \text{ of } \boxed{} = 24$$

23. [Rules / Graphs]



The line above shows:

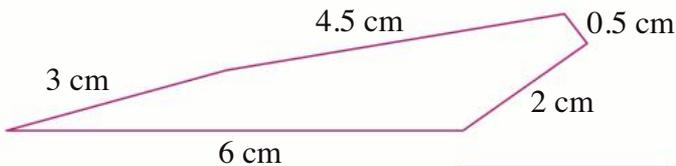
- A) All points where $y = x + 4$
- B) All points where $y = 4$
- C) All points where $x = 4$

24. [Units of Measurement / Time] *

3 years = months

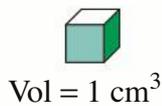
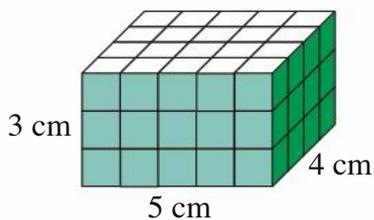
25. [Perimeter] *

Calculate the perimeter of the polygon.


 cm

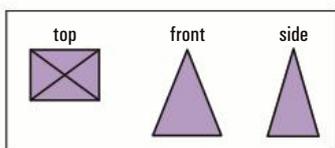
26. [Area / Volume] *

Using Volume = length \times width \times height, find the volume of the rectangular prism.


 cm³

27. [Shapes]

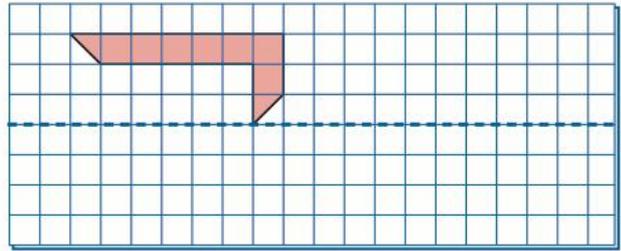
Which solid has these top, front and side views?



- A) B) C)

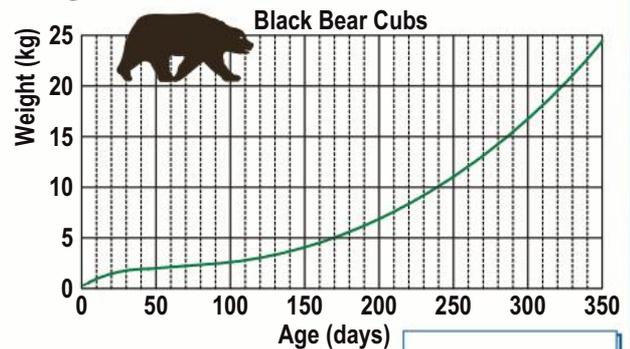
28. [Location / Transformation]

Redraw this shape after reflecting it in the horizontal dotted line and then translating it 10 units to the right.



29. [Statistics]

When a black bear cub reaches 5 kg in weight, how old should it be?

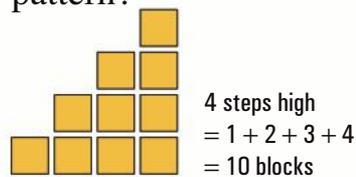

 days

30. [Probability] *

Ten balls numbered 1 to 10 are mixed together, and then one ball is drawn. Find the probability that an odd number is drawn. [Give your answer as a fraction in simplest form.]

31. [Problem Solving 1] *

How many blocks are needed to build a staircase 10 steps high, following this pattern?

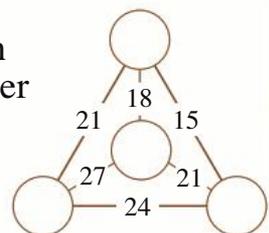


32. [Problem Solving 2] *

If 64 players are on the start list for a Women's Singles Tennis Championship, how many matches are played to decide a winner? [Players are directly eliminated after each match.]

33. [Problem Solving 3] *

Enter a number in each circle so that the number on each line equals the sum of the numbers at each end.





Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Great eaters and great sleepers are incapable of anything else that is great.
Henry IV of France

1. [+ Whole Numbers to 10]

	17	13	8	19	12	5	16	20	11	14
+ 10										

2. [- Whole Numbers to 10]

	14	26	9	23	21	17	25	12	30	28
- 8										

3. [× Whole Numbers to 12]

	11	8	10	4	7	2	5	6	9	3
× 4										

4. [+ Whole Numbers to 12]

	30	54	18	36	48	42	72	24	60	66
÷ 6										

5. [Large Number +,-]

$$\begin{array}{r} 4358 \\ + 1342 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 183 \\ \times 27 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 90.06 \\ - 0.09 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} \\ 6 \overline{) 19.2} \end{array}$$

9. [Fraction +,-] *

$$1\frac{6}{7} + 2\frac{2}{7} = \boxed{}$$

10. [Fraction ×,+] *

$$\frac{4}{5} \div 2 = \boxed{}$$

11. [Percentages] *

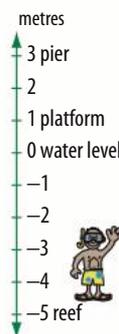
In a store a \$500 scooter is marked '20% off'. What is the sale price of the scooter?

12. [Decimals / Fractions / Percentages]

Write 0.53 as a fraction.

13. [Integers]

A snorkeler is at 4 m below water level. He swims up 3 m and down 4 m. Where is the snorkeler now?



14. [Rates / Ratios] *

Complete the equivalent ratios:

$$12 : \boxed{} = 3 : 5$$

15. [Exponents / Square Roots]

$$90^2 = \boxed{}$$

16. [Order of Operations] *

$$8 + (12 - 5) \times 3 = \boxed{}$$

17. [Exploring Numbers] *

Which fraction has greater value?

$$\frac{5}{6} \text{ or } \frac{2}{3}$$

18. [Multiples / Factors / Primes]

List all the prime numbers between 20 and 40.

19. [Number Patterns]

Complete the pattern:

$$20, 20, 19, 17, 14, \boxed{}, \boxed{}$$

20. [Expressions]

Choose the like terms:

$$2l, 2, l \quad \boxed{}$$

21. [Substitution] *

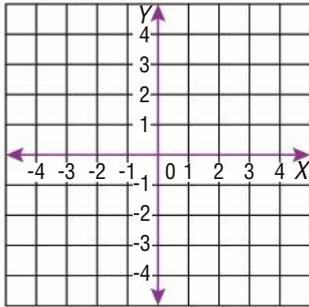
If $t = -3$ and $u = 8$, find the value of $2t - u$

22. [Equations] *

$$\frac{3}{4} \times \boxed{} = 12$$

23. [Rules / Graphs]

Draw a line connecting all the points which have a y-coordinate of 4.

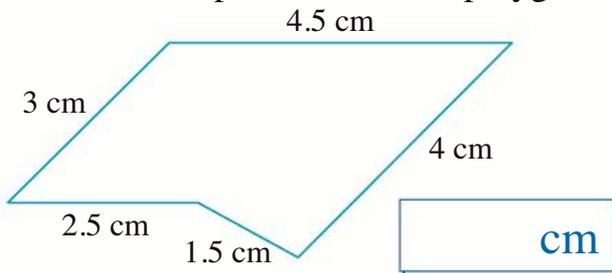


24. [Units of Measurement / Time] *

240 s = min

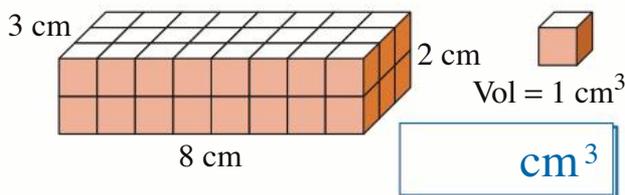
25. [Perimeter] *

Calculate the perimeter of the polygon.



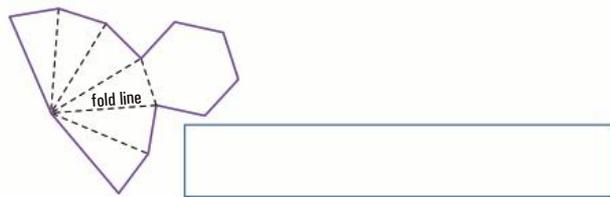
26. [Area / Volume] *

Using Volume = length × width × height, find the volume of the rectangular prism.



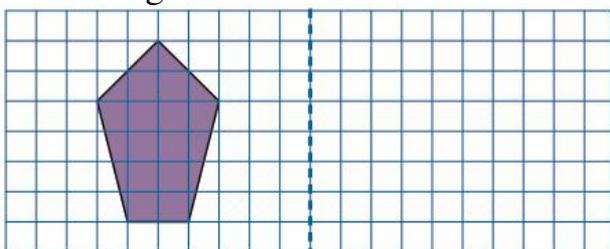
27. [Shapes]

What 3-dimensional shape can this net be used to make?



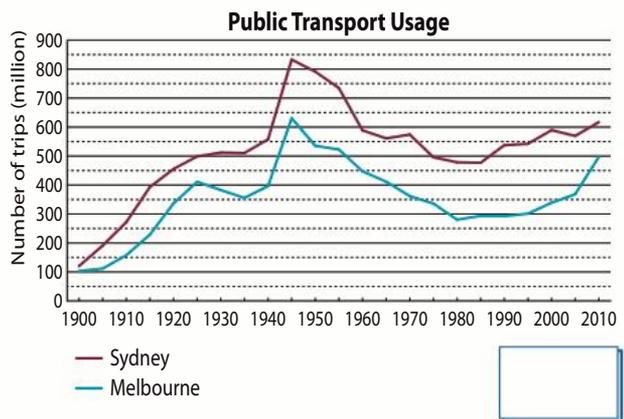
28. [Location / Transformation]

Redraw this shape after reflecting it in the vertical dotted line and then translating it 4 units to the left.



29. [Statistics]

In which year did public transport usage peak in both Sydney and Melbourne?



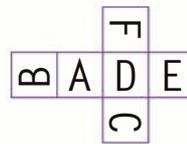
30. [Probability] *

A box contains 60 blue, 20 green and 20 red raffle tickets. If one ticket is picked at random, what is the probability that it is a red ticket?

[Give your answer as a fraction in simplest form.]

31. [Problem Solving 1]

The net shown is folded to form a cube with A on the base. Which of the letters on the four vertical sides will not be the right way up?



32. [Problem Solving 2] *

How many numbers greater than 600 can be formed with the digits 5, 6, 7 and 8 if no digit is used more than once in a number?

33. [Problem Solving 3] *

Vera, Eve and Jessie volunteered for 3 different charities working as a cleaner, an accountant and a courier. Vera ended up working for *Make-A-Wish*. Eve was not working for *Meals on Wheels*. *Red Cross* would not even employ a courier, and *Meals on Wheels* is still advertising for an accountant and a courier. Where is Eve working, and what is her job?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Those who can - do. Those who can't - criticise.

1. [+ Whole Numbers to 10]

	14	21	15	9	13	2	17	6	10	18
+ 8										

2. [- Whole Numbers to 10]

	9	17	28	15	26	13	21	30	24	22
- 9										

3. [× Whole Numbers to 12]

	3	10	6	4	7	8	12	5	9	11
× 5										

4. [+ Whole Numbers to 12]

	22	66	55	88	121	110	77	99	33	44
÷ 11										

5. [Large Number +,-]

$$\begin{array}{r} 6493 \\ + 7451 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 694 \\ \times 23 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 85.36 \\ - 25.6 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} \\ 8 \overline{) 20.8} \end{array}$$

9. [Fraction +,-] *

$$4\frac{4}{9} + 2\frac{8}{9} = \boxed{}$$

10. [Fraction ×,+] *

$$\frac{6}{7} \div 3 =$$

11. [Percentages] *

In a store a \$75 game is marked '50% off'. What is the sale price of the game?

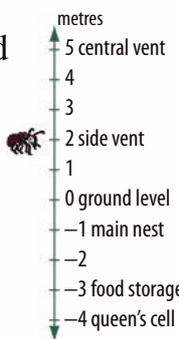
 \$

12. [Decimals / Fractions / Percentages]

One carat is equivalent to one fifth of a gram. Write this fraction as a decimal.

13. [Integers]

A termite entered its tower via the side vent, got food from the storage and then went to the main nest. How far did the termite travel?


 m

14. [Rates / Ratios] *

Complete the equivalent ratios:

$$5 : 12 = \boxed{} : 60$$

15. [Exponents / Square Roots]

$$30^2 =$$

16. [Order of Operations] *

$$14 - (18 - 8) \div 2 =$$

17. [Exploring Numbers] *

Which fraction has greater value?

$$\frac{2}{5} \text{ or } \frac{1}{2}$$

18. [Multiples / Factors / Primes]

Choose the composite numbers:

42, 43, 44, 45, 46, 47, 48

19. [Number Patterns]

Complete the pattern:

60, 58, 54, 48, 40, ,

20. [Expressions]

Choose the like terms:

$4e, e, 4f$

21. [Substitution] *

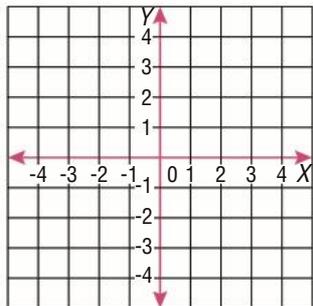
If $y = 1$ and $z = 4$, find the value of $2yz + 8$

22. [Equations] *

$$\frac{5}{6} \times \boxed{} = 25$$

23. [Rules / Graphs]

Draw a line connecting all the points which have an x -coordinate of -2 .

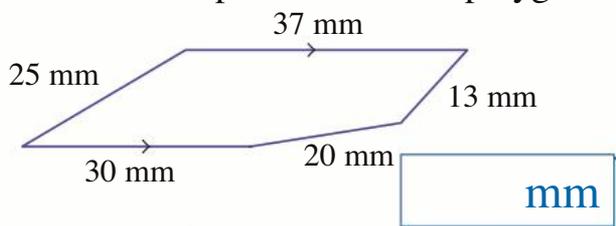


24. [Units of Measurement / Time] *

150 min = h

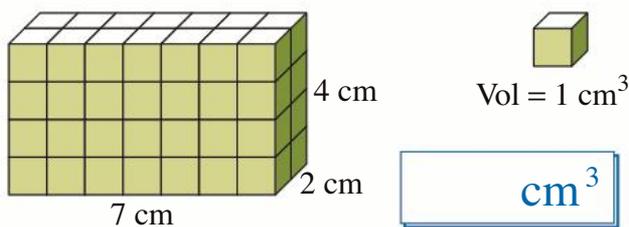
25. [Perimeter] *

Calculate the perimeter of the polygon.



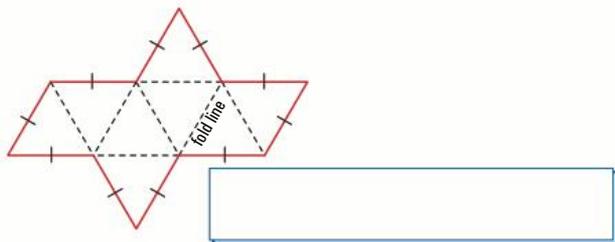
26. [Area / Volume] *

Using $V = lwh$ find the volume of the rectangular prism.



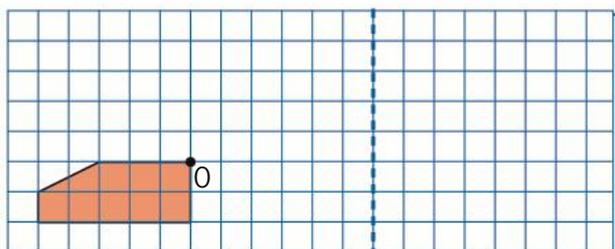
27. [Shapes]

What 3-dimensional shape can this net be used to make?



28. [Location / Transformation]

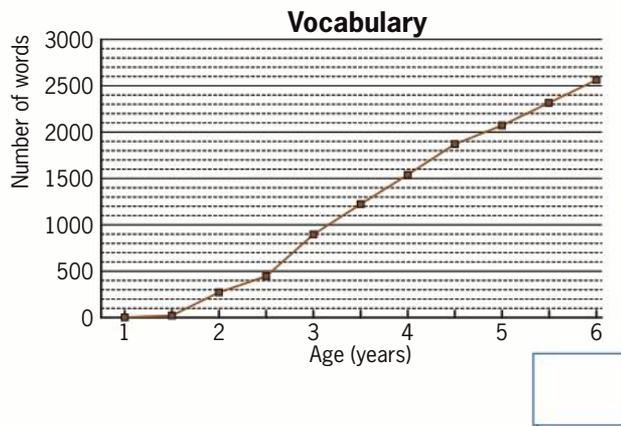
Redraw this shape after rotating it 180° about point O and then reflecting it in the vertical dotted line.



29. [Statistics]

Today is Seb's 3rd birthday. How many new words will he learn to use in the next year?

- A) 400 to 599 words
- B) 600 to 799 words
- C) 800 to 999 words



30. [Probability]

A money bag contains ten 5-dollar notes and thirty 10-dollar notes. If a note is randomly selected from the bag, what is the probability of a 5-dollar note being selected? [Give your answer as a fraction in simplest form.]

31. [Problem Solving 1] *

Grandpa wants to make a rectangular chicken run. If he bought 12 metres of fencing wire, what is the largest area that he can make?

m²

32. [Problem Solving 2] *

In a maths class of 26 students, each girl drew a triangle and each boy drew a rectangle. If there were 92 sides drawn by the students, how many girls were in the class?

33. [Problem Solving 3] *

In this code puzzle, each letter has a different numerical value. The totals for each word are reached by adding together individual values. What is the total value of the word ENTREE?

T	E	A	=	30	
N	E	A	T	=	50
T	A	N	=	40	
T	E	N	=	35	
T	E	A	R	=	55

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	1. [+ Whole Numbers to 10]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1
	2. [- Whole Numbers to 10]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1
	3. [× Whole Numbers to 12]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1
	4. [÷ Whole Numbers to 12]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1
	5. [Large Number +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.3
	6. [Large Number ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.6,8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.7
	7. [Decimal +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.2
	8. [Decimal ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.5
	9. [Fraction +,-]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.6,8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.6,8
	10. [Fraction ×,÷]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.6
	11. [Percentages]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.5
	12. [Decimals / Fractions / Percentages]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.10,11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.12
	13. [Integers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.7,8
	14. [Rates / Ratios]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.8
	15. [Exponents / Square Roots]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.5
	16. [Order of Operations]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.5
	17. [Exploring Numbers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.9
	18. [Multiples / Factors / Primes]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.9
	19. [Number Patterns]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.9
ALGEBRA	20. [Expressions]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.3
	21. [Substitution]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.9
	22. [Equations]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.6
	23. [Rules / Graphs]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.8
MEASUREMENT	24. [Units of Measurement / Time]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.6
	25. [Perimeter]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.6
	26. [Area / Volume]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.8
SPACE	27. [Shapes]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.10,11
	28. [Location / Transformation]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.7
STAT.	29. [Statistics]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.10
PROB.	30. [Probability]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.5,6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.7
PROBLEM SOLVING	31. [Problem Solving 1]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
	32. [Problem Solving 2]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
	33. [Problem Solving 3]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hints & Solutions
Total Correct		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

The secret of life is not to do what you like, but to like what you do.
American Proverb

1. [+ Whole Numbers to 10]

	24	15	53	6	18	39	22	10	37	41
+ 5										

2. [- Whole Numbers to 10]

	22	35	14	18	29	7	10	21	6	33
- 2										

3. [× Whole Numbers to 12]

	7	11	3	9	5	8	4	12	10	6
× 10										

4. [÷ Whole Numbers to 12]

	24	9	6	27	21	12	18	30	15	33
÷ 3										

5. [Large Number +,-]

$$\begin{array}{r} 83026 \\ - 7509 \\ \hline \end{array}$$

10. [Fraction ×,+]*

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

17. [Exploring Numbers]

Round 12.48 to the nearest whole number.

6. [Large Number ×,+]

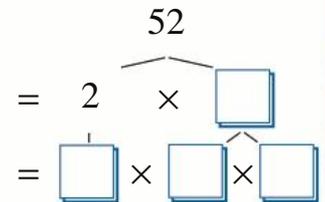
$$\frac{7600}{40} =$$

11. [Percentages]*

$$1\% \text{ of } 200 =$$

18. [Multiples / Factors / Primes]

Express 52 as a product of prime numbers by completing the factor tree.



7. [Decimal +,-]

$$\begin{array}{r} 73.04 \\ 2.9 \\ + 68.5 \\ \hline \end{array}$$

13. [Integers]

Lu owed \$200. He deposits \$800. How much does Lu have now?

19. [Number Patterns]

Complete the pattern:

2, 5, 11, 20, 32, ,

8. [Decimal ×,+]*

$$19.4 \div 10 =$$

14. [Rates / Ratios]*

Which is cheaper per DVD?

- A) \$20 for 25 DVDs
- B) \$30 for 40 DVDs

20. [Expressions]

Simplify $a + a + b$

9. [Fraction +,-]*

$$\frac{2}{5} - \frac{3}{10} =$$

15. [Exponents / Square Roots]

$$\sqrt{1600} =$$

21. [Substitution]*

Use $d = vt$ to find the distance (d) where $v = 6$ and $t = 9$

16. [Order of Operations]*

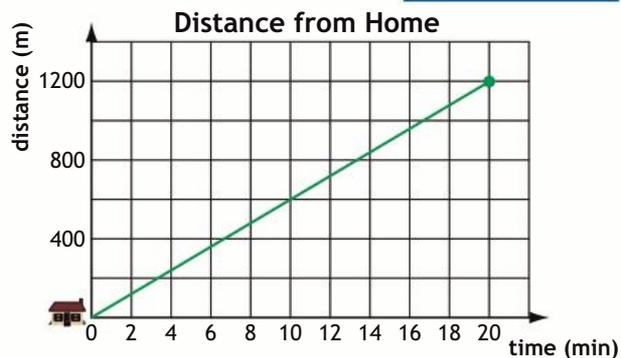
$$(16 - 8) \div (2 + 2) =$$

22. [Equations]*

$$3 + 6 \times \square = 15$$

23. [Rules / Graphs]

The graph shows the distance from home at any time during Na's walk. How far had Na walked after 10 minutes?

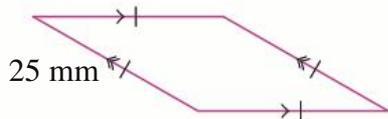


24. [Units of Measurement / Time] *

The shortest river in the world is Oregon's D River near Lincoln City (USA). It is 37 m long. Express this in centimetres.

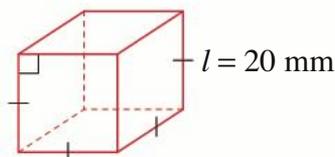
25. [Perimeter] *

Express all measurements in centimetres and then find the perimeter of the rhombus.



26. [Area / Volume] *

Using $V = l^3$ find the volume of the cube.



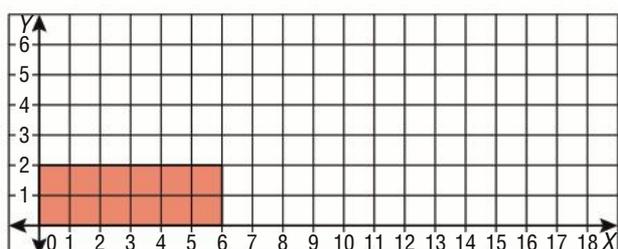
27. [Shapes]

Find the value of x° .



28. [Location / Transformation]

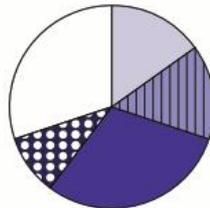
Redraw the rectangle after doubling the coordinates of its vertices.



29. [Statistics]

Since 1600, which continent has recorded about the same proportion of extinct mammals as North America?

Extinction of mammals (1600 - present day)

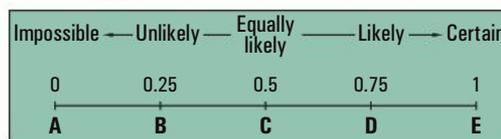


- North America
- Europe
- Australia
- Asia
- Africa

30. [Probability] *

'A yellow marble will be drawn from a bag containing 2 black marbles and 6 yellow marbles.'

Which letter A to E best represents the probability of the event?



31. [Problem Solving 1]

Complete the multiplication table.

×	3	2	
9	45	54	
		4	
4			
	21		

32. [Problem Solving 2] *

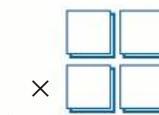
How many triangles are there in this diagram?



33. [Problem Solving 3]

Use the digits 1, 3, 5 and 7 once each, to make two 2-digit numbers.

What is the smallest possible product these two numbers can produce?





Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

When working towards the solution of a problem, it always helps if you know the answer.
Rossiter

1. [+ Whole Numbers to 10]

	45	32	14	18	9	26	37	13	20	11
+ 3										

2. [- Whole Numbers to 10]

	8	19	42	35	14	27	31	40	16	33
- 6										

3. [× Whole Numbers to 12]

	10	5	1	8	3	7	2	9	4	6
× 7										

4. [÷ Whole Numbers to 12]

	90	27	63	45	72	36	81	18	54	9
÷ 9										

5. [Large Number +,-]

$$\begin{array}{r} 59000 \\ - 2007 \\ \hline \end{array}$$

6. [Large Number ×,÷]

$$\frac{54000}{200} =$$

7. [Decimal +,-]

$$\begin{array}{r} 43.8 \\ 6.57 \\ + 20.59 \\ \hline \end{array}$$

8. [Decimal ×,÷] *

$$5.73 \div 10 =$$

9. [Fraction +,-] *

$$\frac{1}{8} + \frac{3}{4} =$$

10. [Fraction ×,÷] *

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

11. [Percentages] *

$$33\frac{1}{3}\% \text{ of } 90 =$$

12. [Decimals / Fractions / Percentages]

$$\text{Change } \frac{16}{50} \text{ to a percentage.}$$

13. [Integers] *

An echidna weighs 4700 g. During hibernation it loses 350 g. During spring it gains 500 g. What does the echidna weigh now?

 g

14. [Rates / Ratios] *

Which is cheaper per call?

A) \$6 for 15 calls

B) \$5 for 10 calls

15. [Exponents / Square Roots]

$$\sqrt{3600} =$$

16. [Order of Operations] *

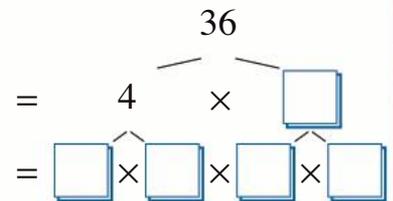
$$50 - (2 + 3 \times 2) =$$

17. [Exploring Numbers]

Round 14.13 to the nearest whole number.

18. [Multiples / Factors / Primes]

Express 36 as a product of prime numbers by completing the factor tree.



19. [Number Patterns]

Complete the pattern:

20, 18, 15, 13, 10, ,

20. [Expressions]

Simplify $s + t + s$

21. [Substitution] *

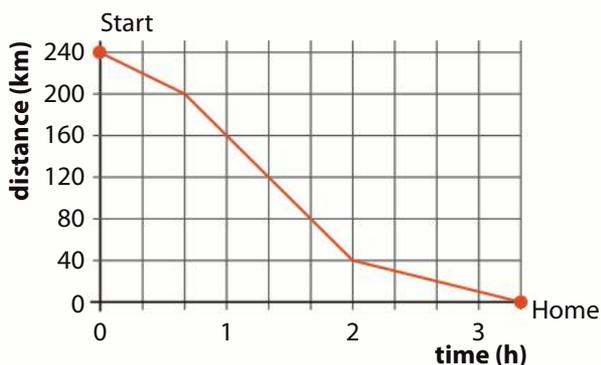
Use $A = bh$ to find the area (A) of a parallelogram where $b = 8$ and $h = 7$

22. [Equations] *

$$4 + 8 \times \square = 28$$

23. [Rules / Graphs]

A family drives home after a holiday. How long did they take to travel halfway?

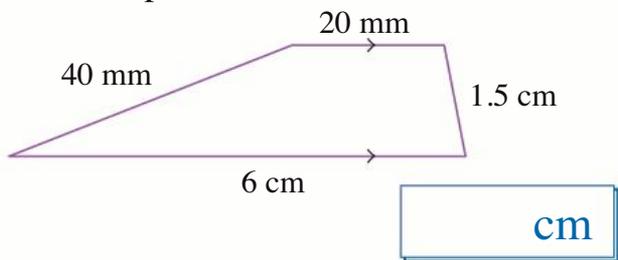


24. [Units of Measurement / Time] *

An average person eats 50 000 kg of food in a lifetime. Express this in tonnes (t).

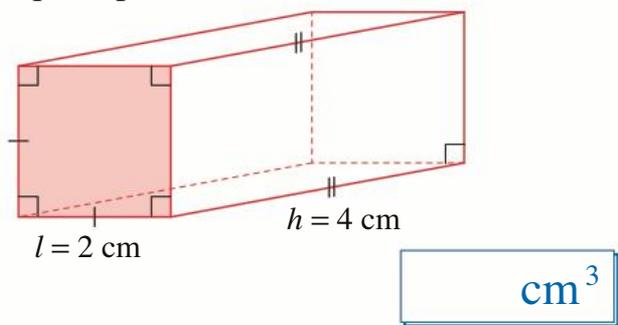
25. [Perimeter] *

Express all measurements in centimetres and then find the perimeter of the trapezium.



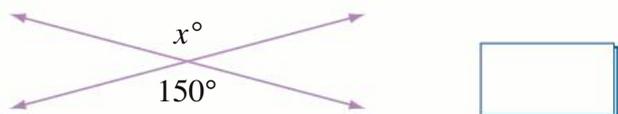
26. [Area / Volume] *

Using $V = l^2h$ find the volume of the square prism.



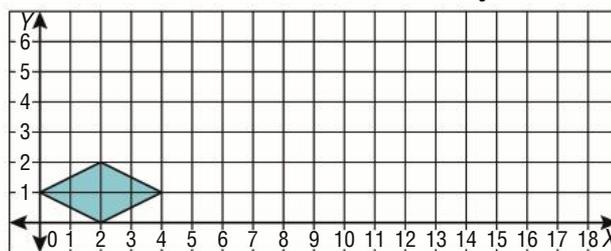
27. [Shapes]

Find the value of x° .



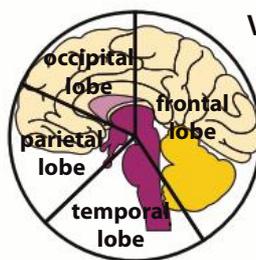
28. [Location / Transformation]

Redraw the rhombus after multiplying the coordinates of its vertices by 3.



29. [Statistics]

Which lobe of the brain is closest to twice the volume of the parietal lobe?

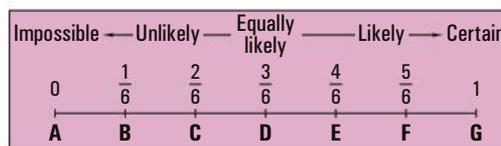


Volume of Cerebral Cortex (brain) by lobes

30. [Probability] *

'A standard die is rolled and an even number comes up.'

Which letter A to G best represents the probability of the event?



31. [Problem Solving 1] *

In a flock of black and white sheep, 2 out of 5 sheep are white. If there are 8 more black sheep than white sheep, how many sheep are in the flock?

32. [Problem Solving 2] *

Each of my daughters has as many brothers as sisters, but each of my sons has three times as many sisters as brothers. How many children do I have?

33. [Problem Solving 3] *

All shirts are the same price. Which deal is cheaper per shirt?

- A) Buy 2 shirts and get 25% off
- B) Buy 3 shirts and save 30%



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Even a mistake may turn out to be the one thing necessary to a worthwhile achievement.
Henry Ford

1. [+ Whole Numbers to 10]

	21	34	30	17	9	15	26	23	32	28
+ 9										

2. [- Whole Numbers to 10]

	23	30	45	18	39	42	16	27	21	14
- 10										

3. [× Whole Numbers to 12]

	6	4	7	3	9	10	12	11	5	8
× 12										

4. [+ Whole Numbers to 12]

	48	12	28	20	24	44	40	16	32	36
÷ 4										

5. [Large Number +,-]

$$\begin{array}{r} 47281 \\ - 3795 \\ \hline \end{array}$$

10. [Fraction ×,+]*

$$\frac{5}{6} \times \frac{2}{3} = \boxed{}$$

17. [Exploring Numbers]

Round 0.18 to one decimal place. $\boxed{}$

6. [Large Number ×,+]

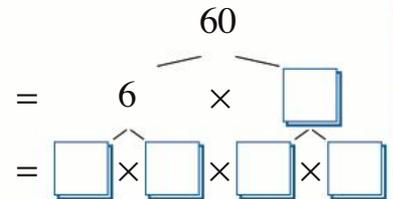
$$11 \overline{) 2475}$$

11. [Percentages]*

$$12.5\% \text{ of } 800 = \boxed{}$$

18. [Multiples / Factors / Primes]

Express 60 as a product of prime numbers by completing the factor tree.



7. [Decimal +,-]

$$\begin{array}{r} 25.8 \\ 7.05 \\ + 49.46 \\ \hline \end{array}$$

13. [Integers]

Alexander the Great became king in 336 BC and died 13 years later. What year did he die? $\boxed{}$

19. [Number Patterns]

Complete the pattern:
10, 9, 7, 6, 4, $\boxed{}$, $\boxed{}$

8. [Decimal ×,+]*

$$16.2 \div 100 = \boxed{}$$

14. [Rates / Ratios]*

Which is the best buy?
A) a 5 kg bag of potatoes at \$9.95
B) 5 kg of loose potatoes at \$2.98 per kg $\boxed{}$

20. [Expressions]

Simplify $e + f + f + e + f$ $\boxed{}$

9. [Fraction +,-]*

$$\frac{2}{3} - \frac{1}{12} = \boxed{}$$

15. [Exponents / Square Roots]

$$\sqrt{4900} = \boxed{}$$

21. [Substitution]*

Use $V = \frac{Ah}{3}$ to find the volume (V) of a pyramid where $A = 6$ and $h = 8$ $\boxed{}$

16. [Order of Operations]*

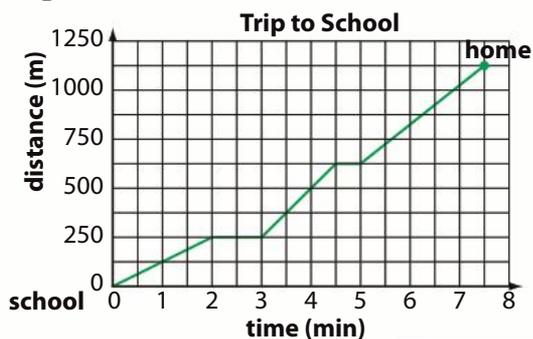
$$(12 + 9 \div 3) \div 5 = \boxed{}$$

22. [Equations]*

$$3 \times (7 - \boxed{}) = 6$$

23. [Rules / Graphs]

If Will cycles to school every day, what is the distance he cycles on his two-way trip?

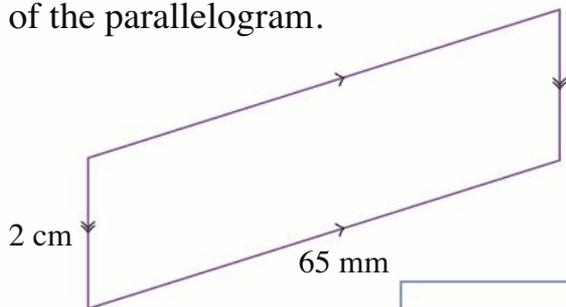


24. [Units of Measurement / Time] *

Some snails can sleep for three years. Express this time in months.

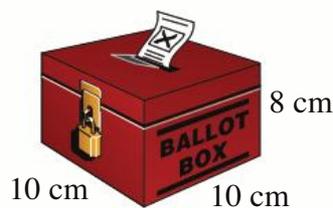
25. [Perimeter] *

Express all measurements in millimetres and then find the perimeter of the parallelogram.



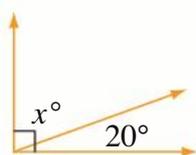
26. [Area / Volume] *

Using $V = l^2h$ find the volume of the ballot box that is a square prism.



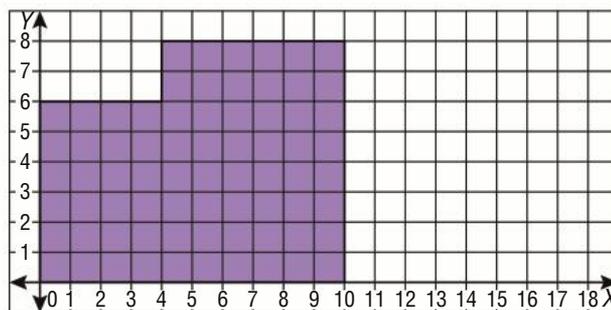
27. [Shapes] *

Find the value of x° .



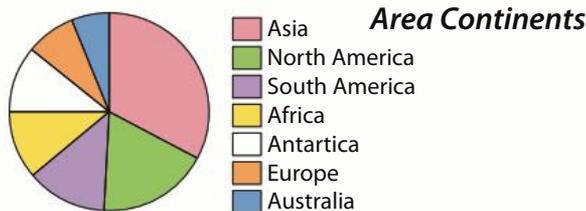
28. [Location / Transformation]

Redraw the polygon after halving the coordinates of its vertices.



29. [Statistics]

Which three continents make up close to half of the world's land surface area?



30. [Probability] *

Which event is most likely to happen?

- A) drawing a consonant from letters A to Z
- B) selecting a multiple of 4 from the digits 0 to 9
- C) rolling a 5 on a standard die

31. [Problem Solving 1]

Two different views are shown of a pair of identical dice, each numbered 1 to 6. Which number is opposite the number 3? [Note: Though identical, the dice are not regular in that opposite sides do not always add to 7.]



32. [Problem Solving 2] *

What is the least number of different colours needed to paint a cube so that no adjacent faces have the same colour?

33. [Problem Solving 3] *

Kahi can eat 32 lollies in one hour. Her sister can eat the same amount in 3 hours. How long will it take both of them together to eat 32 lollies?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Never cut what you can untie.
Joseph Joubert

1. [+ Whole Numbers to 10]

	24	5	18	39	42	33	41	27	16	20
+ 4										

2. [- Whole Numbers to 10]

	39	45	12	44	13	16	28	31	10	27
- 8										

3. [× Whole Numbers to 12]

	5	7	3	4	9	10	2	6	11	8
× 6										

4. [÷ Whole Numbers to 12]

	60	50	15	55	35	40	25	30	20	45
÷ 5										

5. [Large Number +,-]

$$\begin{array}{r} 48000 \\ - \quad 316 \\ \hline \end{array}$$

10. [Fraction ×,+] *

$$\frac{3}{5} \times \frac{1}{9} = \boxed{}$$

17. [Exploring Numbers]

Round 4.055 to two decimal places.

6. [Large Number ×,+]

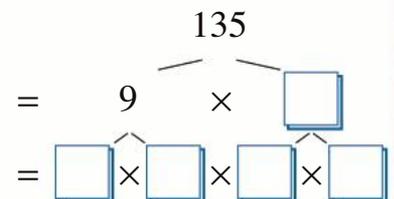
$$12 \overline{) 4248}$$

11. [Percentages] *

$$66\frac{2}{3}\% \text{ of } 300 = \boxed{}$$

18. [Multiples / Factors / Primes]

Express 135 as a product of prime numbers by completing the factor tree.



7. [Decimal +,-]

$$\begin{array}{r} 69.4 \\ 80.79 \\ + 5.61 \\ \hline \end{array}$$

12. [Decimals / Fractions / Percentages] *

A pelican consumes $33\frac{1}{3}\%$ of its body weight in one meal. Write this percentage as a fraction in simplest form.

13. [Integers]

In 44 BC Julius Caesar was assassinated. Rome was founded 691 years earlier. In what year was it founded?

19. [Number Patterns]

Complete the pattern:
0, 2, 6, 12, 20, ,

8. [Decimal ×,+] *

$$5.8 \div 100 = \boxed{}$$

14. [Rates / Ratios] *

Which is the best buy?
A) a 250 g pack of sultanas at \$2.95
B) a 500 g pack of sultanas at \$5.50

20. [Expressions]

Simplify $h + g + h + g$

9. [Fraction +,-] *

$$\frac{7}{12} + \frac{1}{6} = \boxed{}$$

15. [Exponents / Square Roots]

$$\sqrt{10000} = \boxed{}$$

21. [Substitution] *

Use $A = lw$ to find the area (A) of a rectangle where $l = 6$ and $w = 12$

16. [Order of Operations] *

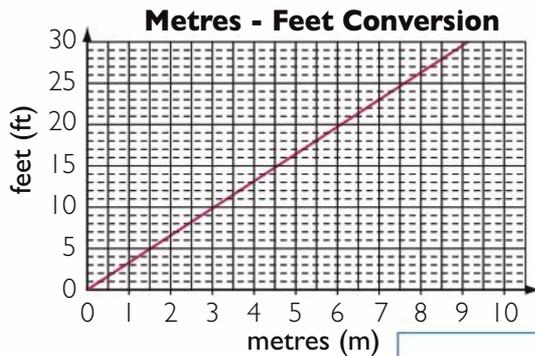
$$(7 - 3) \times (9 - 2) = \boxed{}$$

22. [Equations] *

$$2 \times (18 - \boxed{}) = 10$$

23. [Rules / Graphs]

How many feet are equivalent to 7 m?

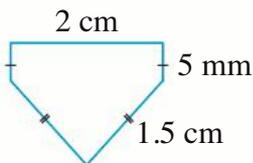


24. [Units of Measurement / Time] *

On average, people can hold their breath for one minute. The world record is seven and a half minutes. Express the record time in seconds.

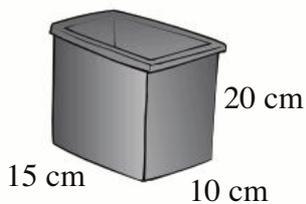
25. [Perimeter] *

Express all measurements in millimetres and then find the perimeter of the polygon.



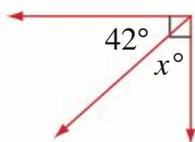
26. [Area / Volume] *

Using $V = lwh$ find the volume of the rubbish bin that is a rectangular prism.



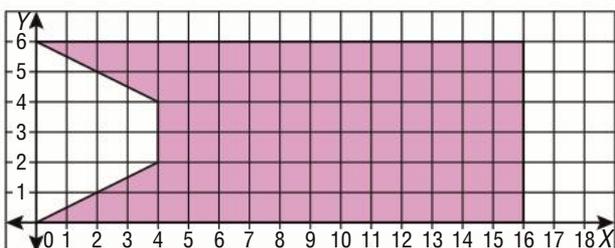
27. [Shapes] *

Find the value of x° .



28. [Location / Transformation]

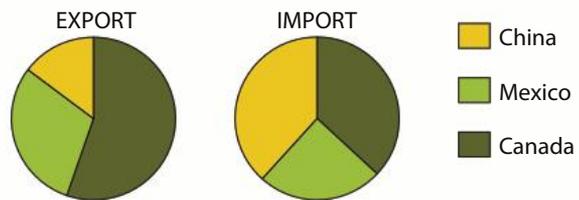
Redraw the polygon after halving the coordinates of its vertices.



29. [Statistics]

To which country does the USA export less than it imports?

Top 3 USA export destinations & import sources



30. [Probability] *

Which has a 50% chance of success?

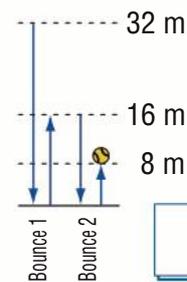
- A) drawing a vowel from letters A to Z
- B) selecting an even number from a list of numbers 10 to 19
- C) choosing a diamond from a deck of 52 playing cards

31. [Problem Solving 1] *

In a fish bowl there were 12 fish, some little, others big. If each of the big fish ate 2 little fish and then the little fish were all gone, how many fish were left in the bowl?

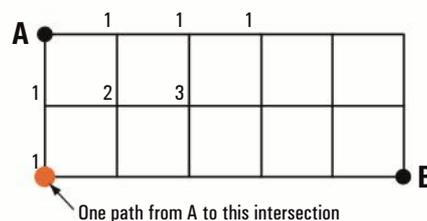
32. [Problem Solving 2] *

A ball is dropped from a height of 32 m. With each bounce, the ball reaches a height that is half the height of the previous bounce. After which bounce will the ball rebound to a maximum height of 25 cm?



33. [Problem Solving 3] *

You are to go from A to B, always moving right or down along the lines. On how many different paths can you go? [The number of paths from A to various intersections has been included.]





Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK
Cigarettes are killers that travel in packs.
Mary Ott

1. [+ Whole Numbers to 10]

	55	8	17	16	9	23	14	2	60	21
+ 6										

2. [- Whole Numbers to 10]

	15	82	9	50	21	6	68	77	14	43
- 4										

3. [× Whole Numbers to 12]

	3	12	8	6	11	7	10	9	4	5
× 9										

4. [+ Whole Numbers to 12]

	66	88	33	110	132	55	44	121	77	99
÷ 11										

5. [Large Number +,-]

$$\begin{array}{r} 43207 \\ + 8057 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 1356 \\ \times 14 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 68.0 \\ - 0.6 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} 0.6 \\ \times 0.4 \\ \hline \end{array}$$

9. [Fraction +,-] *

$$\frac{1}{2} - \frac{1}{6} =$$

10. [Fraction ×,+] *

$$\frac{1}{2} \div \frac{2}{3} =$$

11. [Percentages] *

If a \$200 pair of shoes is reduced by 15%, what is the discount?

 \$

12. [Decimals / Fractions / Percentages]

Complete the table:

Decimal	Fraction	Percentage
	$\frac{1}{10}$	

13. [Integers]

$$2 - 5 =$$

14. [Rates / Ratios] *

The average turtle swims at 20 km/h and walks at 5 km/h. Find the ratio of swimming to walking rates.

 :

15. [Exponents / Square Roots]

$$1^5 =$$

16. [Order of Operations] *

$$5 + 3^2 \times 3 =$$

17. [Exploring Numbers]

Choose the whole numbers from this list:

$\frac{3}{5}$, 61, -3, 127, 0.75

18. [Multiples / Factors / Primes]

List the prime factors of 35.

19. [Number Patterns]

Complete the pattern:

-14, -12, -10, -8, ,

20. [Expressions]

A shop makes \$5 profit for each shirt sold. Which expression shows the profit for x shirts sold?

- A) $5 + x$
- B) $5 \times x$
- C) $x - 5$

21. [Substitution] *

If $h = 7$, find the value of h^2

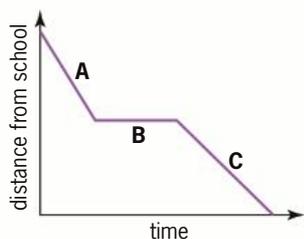
22. [Equations] *

Solve for x :
 $x + 2 = 9$

 $x =$

23. [Rules / Graphs]

This graph shows Claire's journey as she walks from home to school. Where is Claire at the end of section C?

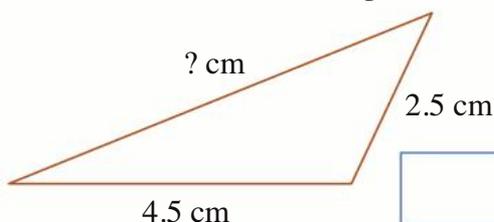


24. [Units of Measurement / Time] *

Find the time in hours and minutes between 8:00 am and 2:15 pm on the same day.

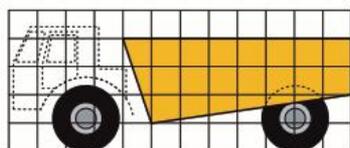
25. [Perimeter] *

The perimeter of the scalene triangle is 13 cm. Find the missing side length.



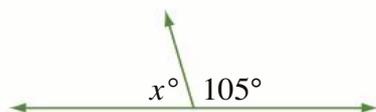
26. [Area / Volume] *

Find the area of the shaded quadrilateral.



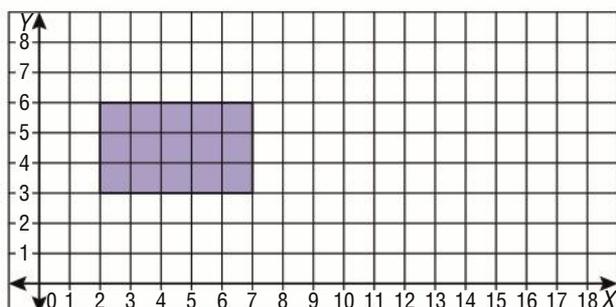
27. [Shapes] *

Find the value of x° .



28. [Location / Transformation]

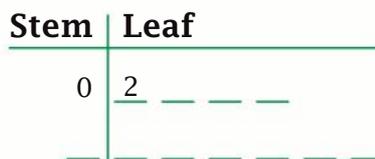
Redraw this rectangle after rotating it 180° about the point of coordinates (7,3).



29. [Statistics]

Complete the stem-and-leaf plot for the data showing the number of stations on each of Japan's monorails:

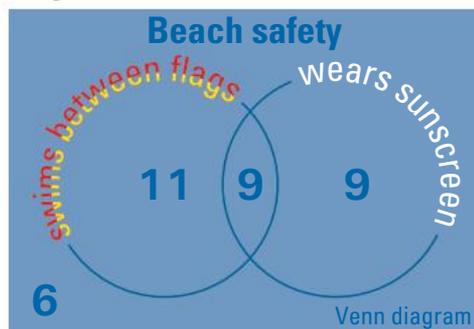
15, 4, 19, 16, 18, 13, 2, 8, 10, 2



Key
0|5 = 5

30. [Probability] *

What is the probability that a person chosen at random swims between the flags? [Give your answer as a fraction in simplest form.]



31. [Problem Solving 1] *

A number of students are standing in a circle. They are evenly spaced and the fifth student is directly opposite the eleventh student. How many students are there altogether?

32. [Problem Solving 2] *

A 2-digit number with 2 different digits has a special property:

“When the sum of its digits is added to the product of its digits, the result is the number itself.”

What is the smallest number with this property?

33. [Problem Solving 3] *

Angela had a pair of cats. The female gave birth to six kittens, three male and three female. The next year the four female cats each gave birth to six kittens, again, three male and three female. If, in the next year, each female does the same and no cats die, how many cats will Angela then have?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

It is a good thing to learn caution by the misfortunes of others.
Syrus

1. [+ Whole Numbers to 10]

	20	25	7	74	13	6	62	18	41	89
+ 8										

2. [- Whole Numbers to 10]

	16	21	30	9	15	78	83	12	14	27
- 7										

3. [× Whole Numbers to 12]

	5	4	8	9	6	12	3	7	11	10
× 5										

4. [÷ Whole Numbers to 12]

	60	48	132	84	72	120	96	36	24	108
÷ 12										

5. [Large Number +, -]

$$\begin{array}{r} 73845 \\ + 2956 \\ \hline \end{array}$$

6. [Large Number ×, ÷]

$$\begin{array}{r} 2308 \\ \times 15 \\ \hline \end{array}$$

7. [Decimal +, -]

$$\begin{array}{r} 3.0 \\ - 0.05 \\ \hline \end{array}$$

8. [Decimal ×, ÷]

$$\begin{array}{r} 0.2 \\ \times 0.5 \\ \hline \end{array}$$

9. [Fraction +, -] *

$$\frac{1}{10} + \frac{2}{5} =$$

10. [Fraction ×, ÷] *

$$\frac{1}{8} \div \frac{4}{9} =$$

11. [Percentages] *

If a \$900 plasma screen TV is reduced by 25%, what is the discount?

 \$

12. [Decimals / Fractions / Percentages]

Complete the table:

Decimal	Fraction	Percentage
0.9		

13. [Integers]

$$4 - 9 =$$

14. [Rates / Ratios] *

A submarine's surface speed is 12 knots, and its diving speed is 20 knots. Find the ratio of diving to surface speed.

 :

15. [Exponents / Square Roots] *

$$4^3 =$$

16. [Order of Operations] *

$$26 - 6 \times 2^2 =$$

17. [Exploring Numbers]

Choose the whole numbers from this list:

$$7.43, -\frac{8}{3}, 1, 225, \sqrt{5}$$

18. [Multiples / Factors / Primes]

List the prime factors of 12.

19. [Number Patterns]

Complete the pattern:

$$11, 8, 5, 2, -1, \underline{\quad}, \underline{\quad}$$

20. [Expressions]

At Luna Park, Li paid \$10 entry and \$5 for each ride. If Li had x rides, which expression shows the total amount spent?

- A) $10 + 5 \times x$
- B) $5 + 10 \times x$
- C) $10 \times 5 + x$

21. [Substitution] *

If $s = 3$, find the value of $3s^2$

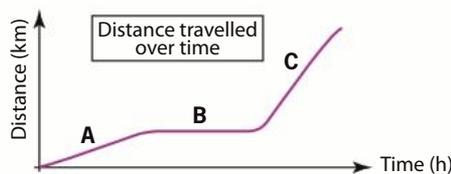
22. [Equations] *

Solve for b :
 $b - 4 = 5$

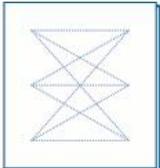
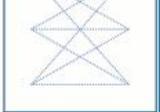
 $b =$

23. [Rules / Graphs]

A trip is divided into 3 parts.



Match each part with its best description.

- A**  Stopped for lunch
- B**  Driving on a dirt road
- C**  Driving on a freeway

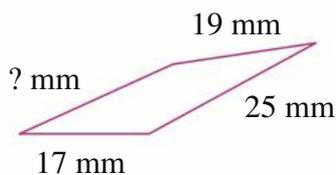
24. [Units of Measurement / Time] *

Find the time in hours and minutes between 5:30 am and 3:00 pm on the same day.

h min

25. [Perimeter] *

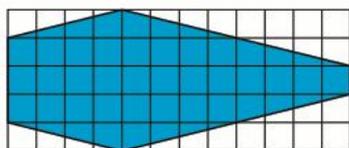
The perimeter of the quadrilateral is 83 mm. Find the missing side length.



mm

26. [Area / Volume] *

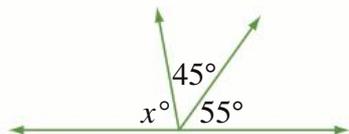
Find the area of the shaded polygon.



sq. units

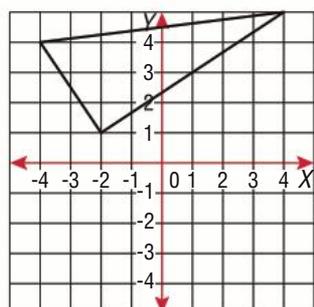
27. [Shapes] *

Find the value of x° .



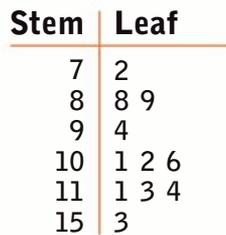
28. [Location / Transformation]

Redraw this triangle after reflecting it in the x -axis.



29. [Statistics] *

This stem-and-leaf plot shows the number of Australian road fatalities in April for the years 2009 to 2019. Find the range of the data.



Key
13 | 0 = 130

30. [Probability] *

What is the probability that a person chosen at random prefers skiing?

[Give your answer as a fraction in simplest form.]



31. [Problem Solving 1] *

How many of the first ten, positive whole numbers can be expressed as the sum of two different prime numbers?

32. [Problem Solving 2]

The table below shows the team results after 2 rounds of the 2018 Soccer World Cup. Which country did Brazil play in its third round robin game, given Serbia won their opening match 1 - 0? [Each team plays each other team in the group once. Three points are awarded for a win, one for a draw and none for a lost game.]

GROUP E TEAMS	MP played	W	D	L	GF for	GA against	Pts
 Brazil	2	1	1	0	3	1	4
 Switzerland	2	1	1	0	3	2	4
 Serbia	2	1	0	1	2	2	3
 Costa Rica	2	0	0	2	0	3	0

Brazil vs _____

33. [Problem Solving 3] *

Nick has six sticks of the following lengths: 3 cm, 3 cm, 5 cm, 9 cm, 11 cm and 13 cm. How many different triangles can he make using three of these sticks?



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

It is when we forget ourselves that we do things that are most likely to be remembered.

1. [+ Whole Numbers to 10]

	11	54	6	19	32	45	8	17	63	10
+ 7										

2. [- Whole Numbers to 10]

	15	97	20	12	53	19	61	14	16	28
- 9										

3. [× Whole Numbers to 12]

	11	12	5	10	7	9	3	6	8	4
× 8										

4. [+ Whole Numbers to 12]

	24	42	18	48	66	72	60	36	30	54
÷ 6										

5. [Large Number +,-]

$$\begin{array}{r} 51632 \\ + 7578 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 3022 \\ \times 19 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 9 \\ - 0.04 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} 0.3 \\ \times 0.9 \\ \hline \end{array}$$

9. [Fraction +,-] *

$$\frac{8}{15} + \frac{3}{5} =$$

10. [Fraction ×,+] *

$$\frac{3}{5} \div \frac{1}{2} =$$

11. [Percentages] *

If an \$80 jumper is reduced by 60%, what is the sale price?

 \$

12. [Decimals / Fractions / Percentages]

Complete the table:

Decimal	Fraction	Percentage
		15%

13. [Integers]

$$-2 + 9 =$$

14. [Rates / Ratios] *

China issued one of the largest stamp ever, 210 mm long and 65 mm wide. Find the ratio of length to width.

 :

15. [Exponents / Square Roots] *

$$3^4 =$$

16. [Order of Operations] *

$$5 + (8 - 4)^2 =$$

17. [Exploring Numbers]

Choose the integers from this list:

$\frac{7}{9}$, 184, -20, 3.14, 630

18. [Multiples / Factors / Primes]

List the prime factors of 30.

19. [Number Patterns]

Complete the pattern:

-25, -20, -15, -10, ,

20. [Expressions]

The canteen sells cups of noodles for \$3 and fruit drinks for \$2. Which expression shows the cost of x cups of noodles and y fruit drinks?

- A) $3 \times x + 3 \times y$
- B) $3 \times x + 2 \times y$
- C) $2 \times x + 3 \times y$

21. [Substitution] *

If $v = 2$, find the value of $13 - v^2$

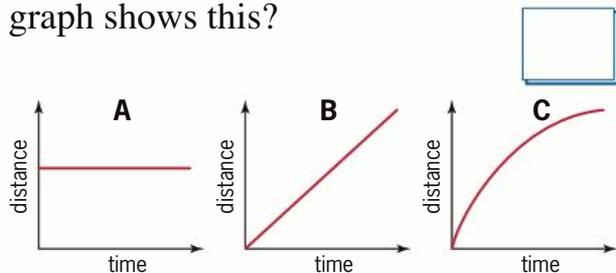
22. [Equations] *

Solve for m :
 $7 + m = 15$

 $m =$

23. [Rules / Graphs]

Alex cycles at a constant speed. Which graph shows this?

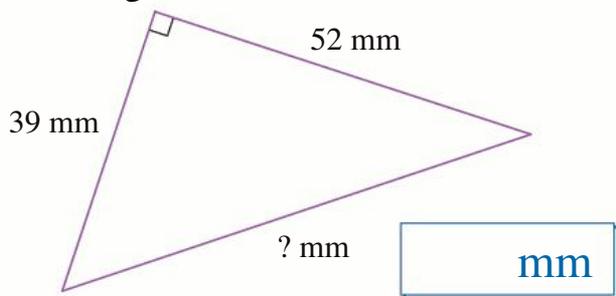


24. [Units of Measurement / Time] *

Find the time in hours and minutes between 22:30 and 04:20 the next day.

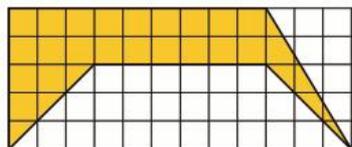
25. [Perimeter] *

The perimeter of the right-angled triangle is 156 mm. Find the missing side length.



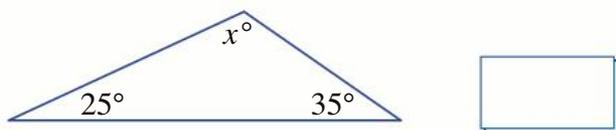
26. [Area / Volume] *

Find the area of the shaded polygon.



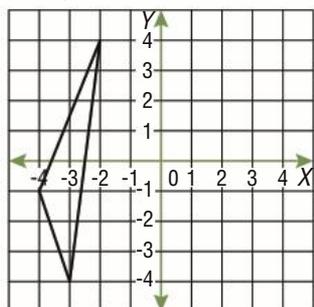
27. [Shapes] *

Find the value of x° .



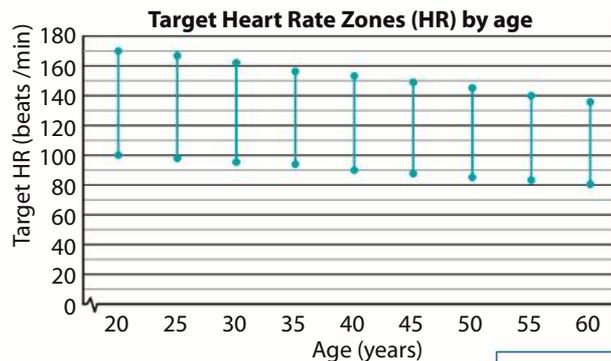
28. [Location / Transformation]

Redraw this triangle after reflecting it in the y-axis.



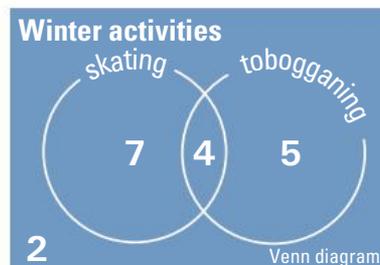
29. [Statistics]

For what age is the target heart rate zone between 85 and 145 beats per minute?



30. [Probability] *

What is the probability that a person chosen at random enjoys both skating and tobogganing? [Give your answer as a fraction in simplest form.]



31. [Problem Solving 1] *

A bottle of soft drink is two thirds full. One quarter of the drink is then consumed. How full is the bottle now?

32. [Problem Solving 2] *

Genevieve forgot the last two digits of her four-digit locker code: **21??**

If the number is divisible by 5, by 6 and by 7, what is Genevieve's locker code?

33. [Problem Solving 3] *

Each of the letters below represents a different digit. If $EAT = 721$, what does TURKEY represent?

		A
M	E	R
+	X	M

T	U	R
K	E	Y



Name:

Due Date: / /

Parent's Signature:

QUOTE OF THE WEEK

Nowadays, when buying a present, it's hard to find something that looks like it cost as much as it did.
W. P. G.

1. [+ Whole Numbers to 10]

	12	14	17	30	75	28	41	79	13	6
+ 9										

2. [- Whole Numbers to 10]

	18	22	16	39	5	27	14	3	20	11
- 3										

3. [× Whole Numbers to 12]

	3	8	11	7	10	12	9	4	6	5
× 12										

4. [÷ Whole Numbers to 12]

	28	77	56	35	49	21	63	42	84	70
÷ 7										

5. [Large Number +,-]

$$\begin{array}{r} 69780 \\ + 2453 \\ \hline \end{array}$$

6. [Large Number ×,+]

$$\begin{array}{r} 4203 \\ \times 37 \\ \hline \end{array}$$

7. [Decimal +,-]

$$\begin{array}{r} 51 \\ - 0.07 \\ \hline \end{array}$$

8. [Decimal ×,+]

$$\begin{array}{r} 0.9 \\ \times 0.4 \\ \hline \end{array}$$

9. [Fraction +,-] *

$$\frac{7}{10} - \frac{9}{20} =$$

10. [Fraction ×,+] *

$$\frac{2}{5} \div \frac{1}{4} =$$

11. [Percentages] *

If an \$8000 diamond ring is discounted by 40%, what is the sale price?

 \$

12. [Decimals / Fractions / Percentages]

Complete the table:

Decimal	Fraction	Percentage
0.6		

13. [Integers]

$$-12 + 6 =$$

14. [Rates / Ratios] *

The Singapore Flyer observation wheel has a height of 16 500 cm and a diameter of 150 m. Find the ratio of diameter to height.

 :

15. [Exponents / Square Roots] *

$$6^3 =$$

16. [Order of Operations] *

$$4 \times (8 - 3)^2 =$$

17. [Exploring Numbers]

Choose the integers from this list:

8.4, -12, 17, $\frac{2}{4}$, 100

18. [Multiples / Factors / Primes]

List the prime factors of 42.

19. [Number Patterns]

Complete the pattern:

13, 9, 5, 1, ,

20. [Expressions]

Rose has x dollars, and Linda has y dollars. If Linda has \$5 more than Rose, which expression shows this?

A) $x + y = 5$

B) $x - y = 5$

C) $y - x = 5$

21. [Substitution] *

If $e = 5$, find the value of $2e^2 - 12$

22. [Equations] *

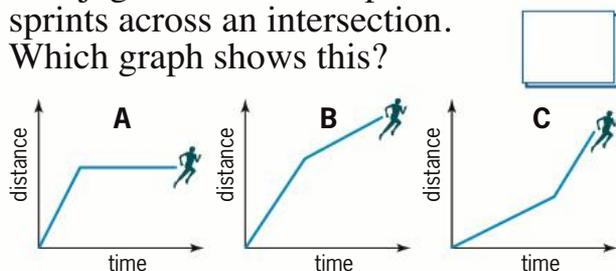
Solve for v :

$$20 - v = 6$$

 $v =$

23. [Rules / Graphs]

Rita jogs at a constant speed and then sprints across an intersection. Which graph shows this?

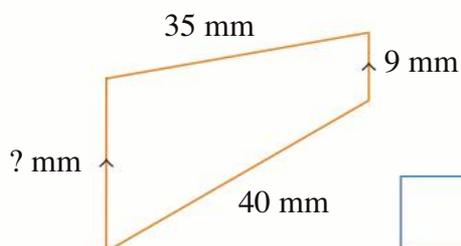


24. [Units of Measurement / Time] *

Find the time in hours and minutes between 02:25 and 15:50 on the same day.

25. [Perimeter] *

The perimeter of the trapezium is 107 mm. Find the missing side length.



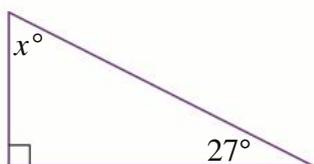
26. [Area / Volume] *

Find the area of the polygon.



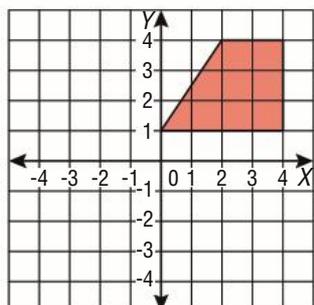
27. [Shapes] *

Find the value of x° .



28. [Location / Transformation]

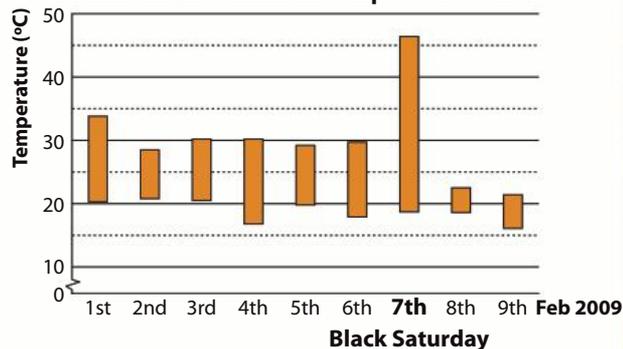
Redraw this trapezium after subtracting 5 units from the x -coordinates and 6 units from the y -coordinates of its vertices.



29. [Statistics]

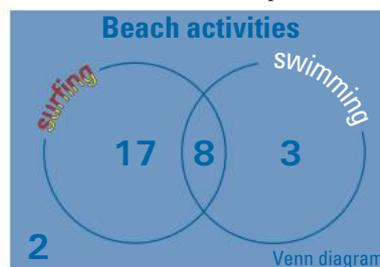
Which of the days shown had the least change in temperature?

Maximum and Minimum Temperatures - Melbourne



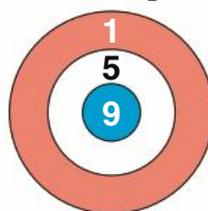
30. [Probability] *

What is the probability that a person chosen at random went surfing? [Give your answer as a fraction in simplest form.]



31. [Problem Solving 1] *

Four darts are thrown at the target. If each dart lands on the target, how many different point totals are possible?



32. [Problem Solving 2] *

What single discount is equivalent to successive discounts of 10% and 20%?

33. [Problem Solving 3] *

Pierre de Fermat, a 17th century French lawyer, stated that any whole number can be written as the sum of four or less square numbers. For example:

$$15 = 3^2 + 2^2 + 1^2 + 1^2$$

Express 95 as such a sum.