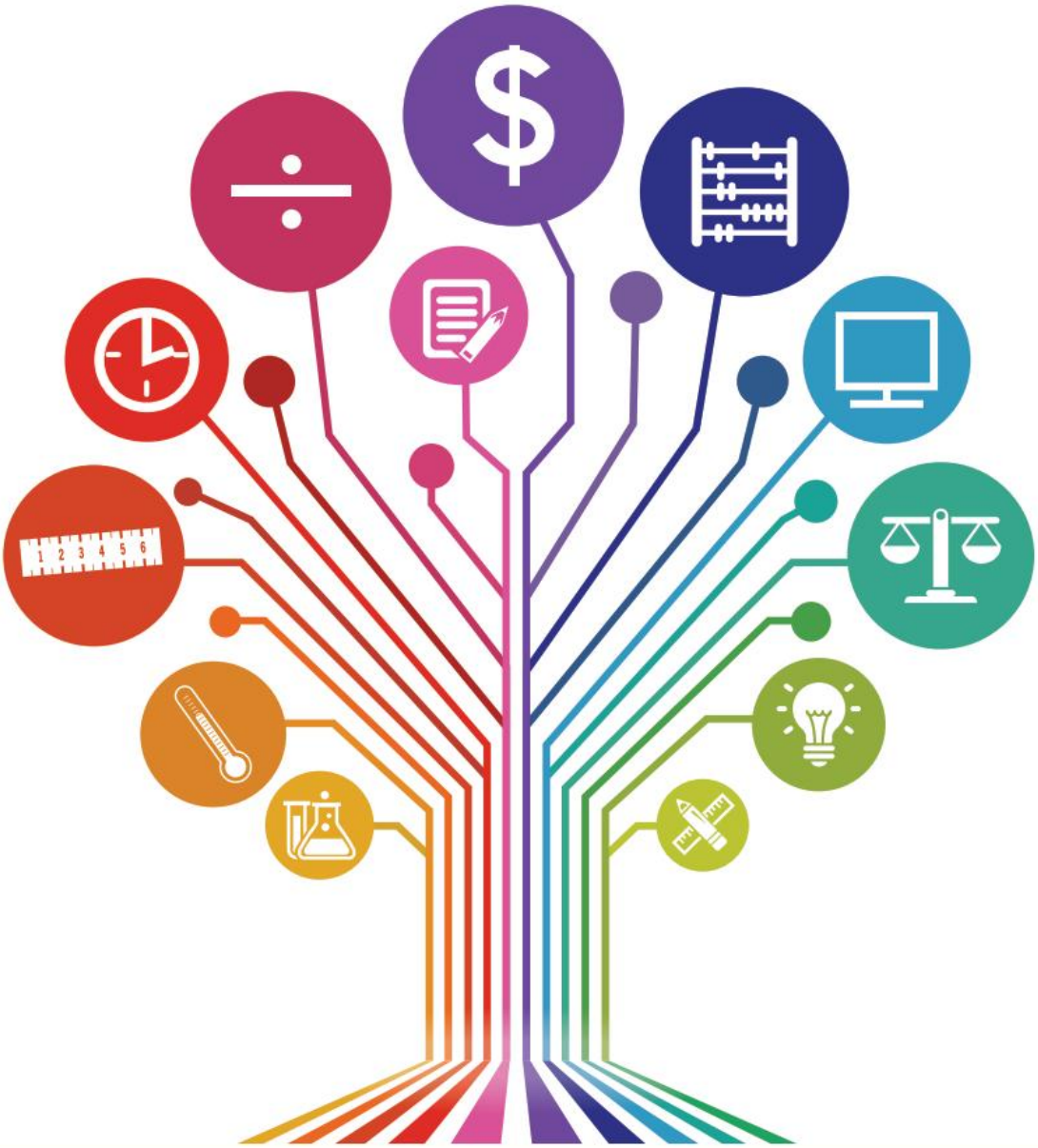
Comparing, estimating and rounding numbers



Learner guide

Working with numbers

Aspire learning resources

Pre-employment skills

Comparing, estimating and rounding numbers

Version 1.1

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Comparing, estimating and rounding numbers

Level 1, 464 St Kilda Road
MELBOURNE VIC 3004 AUSTRALIA
Phone: (03) 9820 1300

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Contents

Comparing, ordering and grouping numbers

When you work with numbers you use many different skills. These skills may include using the four basic operations or calculations, which are to:

- add (+)
- subtract or minus (–)
- multiply or times (×)
- divide or share into groups (÷).

There are also other ways to work with numbers. For example, you can make decisions about numbers such as which:

- number is the largest
- number is the smallest
- numbers are even or odd
- numbers belong to the same times table (multiples of a number).

You will learn how to compare numbers to find similarities (what is the same) and differences. You will put numbers in order, and you will group numbers into sets that share a common feature.

Comparing numbers

When you compare things, you need to look at what is similar or different about them. The same thing applies when you compare numbers. For example, look at the following people. They have similarities and differences.

They are similar as they both have two eyes, a nose and a mouth. Some people also have the same hair or skin colour, or are wearing glasses.

However, the people are also very different. They have different hair, eye and skin colours. They are also male or female, older or younger.

You can do the same thing when comparing numbers. Look at the numbers and think about what is similar and what is different about them.

Activity 1

1. Compare the two amounts of money by listing what is similar about the amounts and what is different.

   $25.25 and $25.52

   _____

2. Compare the two numbers by listing what they have in common and what is different about them.

   131 and 135

   _____

Click to complete Activity 1

You may also compare things by deciding which is bigger, closer or better. The same applies when we compare numbers.

Activity 2

1. Compare the lines and then name which one is the longest.

   a. _____

   b. _____

   c. _____

4. Compare the children in this picture. Which child is the tallest?

5. Compare the numbers and then write down which one is the largest.

   51 14 43 53

6. Compare the numbers and then write down which one is the smallest.

   12.50 1.25 2.15 5.12

Click to complete Activity 2

Ordering numbers

When you put numbers in order, you can put them in ascending or descending order.

Ascending order means you put the numbers in order from the smallest to the largest.

For example: 6, 9, 16, 32.

Descending order means you put the numbers in order from the largest to the smallest.

For example: 32, 16, 9, 6.

Activity 3

1. Below each of the following groups of numbers, rewrite them in ascending order (smallest to largest)

   a. 53, 21, 67, 88, 90

   _____

   b. 83, 95, 18, 61, 20

   _____

   c. 100, 250, 150, 350, 300

   _____

   d. $22.50, $4.90, $7.50, $2.00, $10.80

   _____

   e. 7 mm, 9 mm, 10 mm, 2 mm, 28 mm (mm is millimetres)

   _____

2. Below each of the following groups of numbers, rewrite them in descending order (largest to smallest).

   a. 2, 4, 9, 1, 0

   _____

   b. 13, 15, 18, 11, 19

   _____

   c. 56, 67, 21, 89, 4

   _____

   d. $12.50, $2.90, $5.80, $2.00, $15.80

   _____

   e. 3 m, 5 m, 6 m, 12 m, 8 m (m is metres)

   _____

3. Below each of the following groups of numbers, rewrite them in ascending order.

   a. 800, 300, 250, 1000, 50

   _____

   b. 100 g, 250 g, 150 g, 350 g, 300 g (g is grams)

   _____

   c. 6 L, 3.5 L, 1.5 L, 8 L, 40 L (L is litres)

   _____

   d. 7 km, 9 km, 10 km, 2 km, 28 km (km is kilometres)

   _____

   e. $122.50, $64.00, $78.50, $2.00, $100.80

   _____

Click to complete Activity 3

Grouping numbers

Another way to compare numbers is to group them together depending on what they have in common – what is similar about them. For example, use the following numbers and group them according to four different features.

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

Feature	What it means	Example
Odd or even	Numbers are either odd or even. An odd number is a whole number that can't be divided by two to leave a whole number. An even number can be divided by two, leaving a whole number.	Odd numbers = 1, 3, 5, 7, 9 Even numbers = 2, 4, 6, 8, 10
One digit or two	'Digit' is another word for a single number. If a number has two digits, it contains two numbers.	One digit = 1, 2, 3, 4, 5, 6, 7, 8, 9 Two digits = 10

Feature	What it means	Example
Multiples of two or three	If a number is a multiple of two, you can divide it by two and it belongs to the two times table. A multiple of three can be divided by three and belongs the three times table. **Note**: not all the numbers fit into this category.	Multiples of two = 2, 4, 6, 8, 10 Multiples of three = 3, 6, 9
Whole numbers or fractions	If a number is a whole number, it doesn't contain a fraction or decimal point. Fractions are parts of a number or use decimal points; for example, ½ or 0.5.	Whole numbers = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Fractions = there are no fractions in this group of numbers

Activity 4

Use the following numbers to group them based on the four different features named:

5, 10, 15, 20, 25, 30, 35, 40, 45, 50

1. Whether the numbers are odd or even

   Odd numbers = _____

   Even numbers = _____

2. Whether the numbers have one digit or two digits

   One digit = _____

   Two digits = _____

3. Whether the numbers are multiples of two (in the two times table) or multiples of three (in the three times table).

   Multiples of two = _____

   Multiples of three = _____

4. Whether the numbers are whole numbers or fractions

   Whole numbers = _____

   Fractions = _____

Click to complete Activity 4

Accuracy and rounding

Story

Leo works in a warehouse and studies once a week to learn more about warehousing and storage. He often deals with large numbers of very small parts (like nuts and bolts) stored in big crates. Sometimes he needs to report on the number of crates stored on the warehouse shelves. Leo needs to know when to give exact numbers and when to give rounded numbers.

In school Leo had a lot of trouble learning how to round numbers and knowing when to round a number up or down. Luckily this year Leo's supervisor Phil has taught Leo some rules about rounding that make sense to him.

At work and at home you may need to use rounded numbers (a rough, not exact number) rather than exact ones. For example, this may be the case when you are:

- dealing with nuts and bolts or crates at work
- dealing with money when shopping or banking
- balancing your accounts and your home budget
- giving people directions and providing a rough idea of time or distance.

The rules and questions

When working with numbers, use the following questions to help decide how accurate (exact) you should be. Sometimes you may need to have or use exact numbers. At other times, you may be able to use estimates or rounded numbers.

1. Do I need an exact amount or is a rounded number okay to use?
   - If an exact amount is needed, use a calculator and do careful calculations.
   - If a rough amount (close but not exact) is okay, ask the next question.
2. How accurate (close) does the rounded number need to be?
   - For example, should the number be rounded to the nearest 10 or nearest 100?
3. Does the number I have need to be rounded up or down?

Rounding to the nearest 10

If you are dealing with large numbers (for example, 682 bolts) and you don't need an exact number, you should ask yourself the second question – how accurate does the rounded number need to be?

If you need to round the number (682) to the nearest 10, you must choose the nearest whole number that can be divided by 10. Look at the line below. Which number is 682 closest to – 680 or 690?

680	681	682	683	684	685	686	687	688	689	**690**

You can see that 682 is closer to 680. It ends in 2, so you would round down to the nearest 10.

However, if you needed to round 688 to the nearest 10, you would round up to 690, as 688 is closer to 690.

You can also follow these rules:

- If the number ends in 0, 1, 2, 3 or 4, you round down.
- If a number ends in 5, 6, 7, 8 or 9, you round up.

And if you were rounding 685 to the nearest 10, you would round up to 690, as numbers ending in 5 are rounded up.

Activity 5

Practise rounding the following numbers to the nearest 10.

1. 165 = _____
2. 48 = _____
3. 324 = _____
4. 93 = _____
5. 777 = _____
6. 9 = _____

Click to complete Activity 5

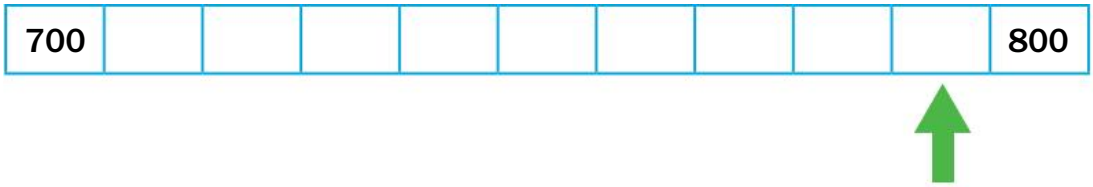
Rounding to the nearest 100

Sometimes you may need to round to the nearest 100. This is similar to rounding to the nearest 10. However, when rounding to the nearest 100, you look at the last two digits.

If the second-last digit is a 0, 1, 2, 3, or 4 you round down.

If the second-last digit is a 5, 6, 7, 8 or 9 you round up.

Say you need to round 789 to the nearest 100. You need to decide if is closer to 700 or 800. Look at the following line to help you decide. The arrow shows where 789 would be.



You can see that 789 is closer to 800, so you would round up to this number.

You can also look at the second-last digit of 789, which is an 8. This also tells you to round up.

Activity 6

Practise rounding the following numbers to the nearest 100.

1. 656 = _____
2. 489 = _____
3. 241 = _____
4. 936 = _____
5. 770 = _____
6. 348 = _____

Click to complete Activity 6

Rounding numbers to the nearest 1000

When dealing with very large numbers, for example 250,789, you may only need to round to the nearest 1000. You must choose which thousand the number is closest to. When rounding to the nearest 1000, look at the last three digits.

If the third-last digit is a 0, 1, 2, 3, or 4 you round down.

If the third-last digit is a 5, 6, 7, 8 or 9 you round up.

Look at the line below. The arrow shows where 250,789 would be.

You can see that 250,789 is closer to 251,000, so you would round up to this number.

You can also look at the third-last digit of 250,789, which is a 7. This also tells you to round up.

Activity 7

Practise rounding the following numbers to the nearest thousand.

1. 4,656 = _____
2. 5,489 = _____
3. 9,241 = _____
4. 12,936 = _____
5. 2,770 = _____
6. 13,048 = _____

Click to complete Activity 7

Rounding money

When dealing with money, you may need to round a cent or dollar amount. This happens very often when you are shopping. You may have seen a bag of apples for sale for $2.99. Australian money no longer has one- and two-cent coins, so we need to round this amount to the nearest five cents (we still have five-cent pieces). When working with money and rounding to the nearest five cents, the rules are a bit different:

- If the number ends in 1, 2, 6 or 7 you round down.
- If a number ends in 3, 4, 8 or 9 you round up.
- If the number ends in 5, you don't need to round at all.

So, the bag of apples would be rounded up and you would pay $3.00.

Activity 8

Practise rounding the following dollar amounts to the nearest five cents.

1. $12.03 = _____
2. $9.53 = _____
3. $16.24 = _____
4. $5.08 = _____
5. $32.59 = _____
6. $1.81 = _____

Click to complete Activity 8

You may also need to round to the nearest dollar amount. To do this, you need to look at the number after the decimal point and then decide if you should round up or down.

Activity 9

Practise rounding the following dollar amount to the nearest dollar.

1. $22.35 = _____
2. $19.50 = _____
3. $36.40 = _____
4. $5.85 = _____
5. $62.95 = _____
6. $1.60 = _____

Click to complete Activity 9

Rounding time and distance

You may also use rounding when giving or following directions to give people a rough idea of time or distance.

For example, you never hear people say, 'It takes 28 minutes to get to my house'. Rather, they usually round the number to 30 minutes – half an hour.

When people talk about distance in kilometres (km), they usually round the kilometres to the nearest 5 or 10, depending on the distance.

Activity 10

1. Practise rounding the following distances to the nearest kilometre.

   a. 56.5 km = _____

   b. 48.9 km = _____

   c. 9.4 km = _____

4. Now practise rounding the following distances to the nearest 10 kilometres.

   a. 936 km = _____

   b. 775 km = _____

   c. 348 km = _____

4. Now round the following distances to the nearest 100 kilometres.

   a. 369 km = _____

   b. 706 km = _____

   c. 350 km = _____

4. Round the following times to the nearest hour.

   a. 4.5 hours = _____

   b. 8.9 hours = _____

   c. 9.2 hours = _____

   d. Three quarters of an hour = _____

Click to complete Activity 10

Estimating

Story

At school Leo had a lot of trouble rounding and estimating numbers. In fact, he often had difficulty knowing the difference between them. This year, while working in the warehouse and studying, he has learnt some definitions and some strategies to help him make estimates.

What is an estimate?

An estimate is:

- a rough calculation
- a predicted amount
- an approximate quantity or worth.

So according to these definitions, to estimate you:

- do a rough calculation
- make a prediction
- approximate.

An estimate is not just a guess. It is an educated guess. This means taking information into account to get a number close to the exact one. For example, to estimate the number of bolts in a box, you wouldn't just pick a number. You would look at the size of the box and the size of the bolts to make a good estimate of how many are in the box.

In everyday life, at home and at work, we are more likely to use estimates of time, distance, weight or costs rather than exact amounts. This is because often it takes a lot of time to find exact numbers (like counting a box full of bolts) and an estimation is usually adequate.

However, there are some things you should know:

- You need to know when to estimate and when to use exact numbers.
- You need to know how to estimate accurately.
- There are different ways to talk about estimates. You can estimate or you can get an estimate. They both mean the same thing. For example:
  - You can estimate the cost of having a mobile phone.

    OR

    You can get an estimate of the cost of having a mobile phone.

Activity 11

This activity will give you practice at estimating. You will need a tape measure to check your estimates. First, estimate the following, giving your answers in metres. Then, check your answers with the tape measure.

1. How long is the room you are in at the moment?

   Estimate = _____

   Actual length = _____

2. How high is the door?

   Estimate = _____

   Actual height = _____

3. How long is the table you are sitting at?

   Estimate = _____

   Actual length = _____

Click to complete Activity 11

When would you need or use an estimate?

As mentioned, you need to decide when you can use an estimate. This depends on the situation. Here are four situations where an estimate is okay:

- Estimating the cost to repair your damaged car
- Estimating the cost of an overseas holiday
- Estimating how long a job will take to complete
- Estimating how long it will take you to drive from Brisbane to Sydney

Activity 12

Name four other situations when an estimate would be adequate.

_____

_____

_____

_____

Click to complete Activity 12

Strategies to help

Now that you know that an estimate is more than just a guess, here are two strategies to help you make good estimates. You may find them helpful, or you may have your own strategies that work for you.

Strategy	Example
When the estimate you need to find involves a sum, you can round each amount and then add them to find an estimate of the total.	For example, if you know that the three training books you need cost $18.50, $45.98 and $25.65, you can round the numbers to the nearest five dollars to find a good estimate. So, $18.50 + $45.98 + $25.65 would be rounded to $20.00 + $45.00 + $25.00 = $90.00. So your estimate is $90.00. Now, calculate the exact amount to see how accurate your estimate is: $18.50 + $45.98 + $25.65 = $90.13
When the estimate you need involves one cost or quantity, think of something similar and use it to calculate your estimate.	For example, if you know that a packet of flour weighs 1 kg, then you can estimate the weight of something else of a similar size. Or hold one item in each hand and compare the,m to make your estimate.

Activity 13

Use the strategies listed or your own, to make an estimate for each of the following. Remember to use the information you already know, as this will help.

1. How long would it take you to get into the city from your house by train?

   _____

2. How much would it cost to go to the movies, buy popcorn and a drink?

   _____

3. How much would it cost to have a meal at an inexpensive restaurant if you have a main meal, soft drink and a dessert?

   (Hint: estimate each cost, then add them)

   _____

4. How much would it cost to buy three books costing $15.60, $19.20 and $32.50?

   _____

Click to complete Activity 13

Averages

Story

As with rounding and estimating numbers, Leo finds the idea of averages hard to understand. However, Leo's supervisor Phil tells him this story, which helps him to understand.

'Last year when we wanted to talk to the manager about a health and safety issue, we didn't all talk to him. Instead we chose Ivan to represent us. Ivan is the best representative of our group for health and safety. And last month when we decided we'd like a picnic for the Christmas party at the end of the year, we sent Martine to speak to the manager. Martine is the best representative of our group for social events.'

'One person represented us all,' continued Phil. 'That is what an average is like: one number that represents a whole group of numbers.'

So, if an average is a number that best represents a whole group of numbers, how do you find this number?

First, you need to know what numbers you are working with. Say you want to find the average age of some children who attended a party. These are the children who went to the party, with their ages beside their names:

Kim = 7 years

Travis = 8 years

John = 7 years

Amy = 6 years

Peter = 7 years

To work out the average age, first you need to add up all the ages, so:

7 + 8 + 7 + 6 + 7 = 35

Now, you need to divide the total of their ages (35), by the number of children who went the party. Five children went to the party, so:

35 ÷ 5 = 7

So the average age of the children who went to the party is 7.

We use averages to give a representative number, rather than an exact one, as it often takes a long time to find exact numbers, when an average is just as good.

For example, if someone asked you the age of the children who went to the party, you probably wouldn't say 7, 8, 7, 6 and 7. You would probably just say they were around 7 years old. This tells the person that while the children are not all 7, they are close to this age, which is the average.

You can use averages in many situations; for example, you can find:

- the average weight of the members of your family
- the average number of words on a line
- the average number of chips in a packet.

Using averages is very useful. Just imagine you have a page of writing and need to know how many words are on the page. Instead of counting every single word, you could calculate an average.

You first need to work out the average number of words on a line. To do this, you would have to count a few lines. So, count the number of words on 4 lines. Here is what you find:

Line 1 = 19 words

Line 2 = 16 words

Line 3 = 20 words

Line 4 = 13 words

Now, to find the average, find the total number of words on these four lines, so:

19 + 16 + 20 + 13 = 68

Now, divide this total by the number of lines (4) to find the average number of words on each line.

68 ÷ 4 = 17

So, the average number of words on each line is 17. Another way to say this is there are about 17 words on each line – some lines may have more words and some lines may have less.

But remember, we need to find the average number of words on the whole page. To do this, you need to count how many lines in total are on the page. Say you count 30 lines. Now, multiply the number of lines (30) by the average number of words per line to get the average number of words on a page. So:

30 × 17 = 510

The average number of words on the page is 510. This tells you that each page will have around this number of words on it.

Activity 14

1. Find the average height of this group of five people. Their heights are:
   - 125 cm
   - 116 cm
   - 115 cm
   - 120 cm
   - 119 cm

---

2. Find an average fortnightly wage for these seven people if they earn the following:
   - $1,000
   - $700
   - $900
   - $600
   - $600
   - $800
   - $1,500

Click to complete Activity 14

Using averages is related to estimating and rounding numbers. You can use an average to help you make an estimate, just like you can use rounded numbers to help you make an estimate. You can also use averages to check your estimates, if you don't have a calculator. Just remember, each situation is different, so be clear whether you need to find an exact number, an estimate or an average.

What you have learnt

Put a ✓ in the box when you have learnt these things.

- ☐ You can compare numbers to find their similarities or differences.
- ☐ You can compare numbers by putting them in ascending or descending order or by grouping those with a common feature; for example, odd or even numbers.
- ☐ A rounded number is a rough, not exact number that is easier to make calculations with.
- ☐ You can round up or down and look at the last few digits of a number to decide which way to round.
- ☐ Depending on how big the number is, you can round to the nearest 10, 100, 1000 or even 10,000.
- ☐ When rounding a cent amount, if the cents end in a 1, 2, 6 or 7, you round down; if they end in a 3, 4, 8 or 9, you round up.
- ☐ An estimation is an educated guess, rather than just a guess.
- ☐ You can use rounding to help you estimate or you can compare things to find a good estimate.
- ☐ An average is a number that represents a whole group of numbers, or an approximate number the other numbers are closest to.
- ☐ Use averages to save you time when you don't need an exact number, and to help make and check your estimates.

Check your learning

Answer the following questions.

1. Compare the following numbers by saying what is similar and what is different about them.

   a. 100 and 1000

   _____

   b. $7.75 and $5.77

   _____

2. Put the following numbers in ascending order:
   121, 795, 852, 12, 226, 391

   _____

3. Put the following numbers in descending order:
   19, 1019, 6412, 704, 999, 101

   _____

4. Look at the following list of numbers and then group them in multiples of two or multiples of three. Note: some numbers may fit into both categories.

   12, 15, 57, 69, 4, 333, 222, 144, 98, 20

   _____

5. Round the following amounts to the nearest 10 dollars:

   a. $52.50 = _____

   b. $19.50 = _____

6. Round the following amounts to the nearest 100 dollars:

   a. $436.00 = _____

   b. $215.80 = _____

7. Round the following amounts to the nearest 1000 dollars:

   a. $2162.90 = _____

   b. $9851.60 = _____

8. Make an estimate for each of the following and then check your answers with a tape measure.

   a. The length of your shoe

      Estimate:_____ Answer:_____

   b. The length of your bed

      Estimate:_____ Answer: _____

   c. Your height

      Estimate:_____ Answer: _____

9. Estimate the cost of a shopping trip if you buy:

   - 1 L of milk for $1.20
   - 500 g of ham for $9.00
   - 1 loaf of bread for $2.50
   - 250 g cheese for $2.75

_____

10. Estimate how long it would take to save $1000 if you save $95 each month?

---

11. Calculate the average of the following:

    a. The weight of a family of five whose weights are:
    27 kg, 35 kg, 39 kg, 67 kg, 87 kg.

---

    b. The number of lollies in a packet if seven different packets contain:
    17, 18, 20, 18, 18, 20 and 17 lollies.

Click to complete

Answers

Answers to activities

Activity 1

Answer to Question 1

They are similar as they both have 2 number 2s and 2 number 5s.

They are different as the last two numbers are in a different order.

Answer to Question 2

They are similar as they both have three digits and start with the numbers 1 and 3.

They are different as the last number is different.

Activity 2

Answer to Question 1

a)

Answer to Question 2

The boy third from the right.

Answer to Question 3

53

Answer to Question 4

1.25

Activity 3

Answer to Question 1

a. 21, 53, 67, 88, 90
b. 18, 20, 61, 83, 95
c. 100, 150, 250, 300, 350
d. $2.00, $4.90, $7.50, $10.80, $22.50
e. 2 mm, 7 mm, 9 mm, 10 mm, 28 mm

Answer to Question 2

a. 9, 4, 2, 1, 0
b. 19, 18, 15, 13, 11
c. 89, 67, 56, 21, 4
d. $15.80, $12.50, $5.80, $2.90, $2.00
e. 12 m, 8 m, 6 m, 5 m, 3 m (m is metres)

Answer to Question 3

a. 50, 250, 300, 800, 1000
b. 100 g, 150 g, 250 g, 300 g, 350 g
c. 1.5 L, 3.5 L, 6 L, 8 L, 40 L
d. 2 km, 7 km, 9 km, 10 km, 28 km
e. $2.00, $64.00, $78.50, $100.80, $122.50

Activity 4

Answer to Question 1

Odd numbers = 5, 15, 25, 35, 45

Even numbers = 10, 20, 30, 40, 50

Answer to Question 2

One digit = 5

Two digits = 10, 15, 20, 25, 30, 35, 40, 45, 50

Answer to Question 3

Multiples of two = 10, 20, 30, 40, 50

Multiples of three = 15, 30, 45

Answer to Question 4

Whole numbers = 5, 10, 15, 20, 25, 30, 35, 40, 45, 50

Fractions = None

Activity 5

Answer to Question 1

170

Answer to Question 2

50

Answer to Question 3

320

Answer to Question 4

90

Answer to Question 5

780

Answer to Question 6

10

Activity 6

Answer to Question 1

700

Answer to Question 2

500

Answer to Question 3

200

Answer to Question 4

900

Answer to Question 5

800

Answer to Question 6

300

Activity 7

Answer to Question 1

5,000

Answer to Question 2

5,000

Answer to Question 3

9,000

Answer to Question 4

13,000

Answer to Question 5

3,000

Answer to Question 6

13,000

Activity 8

Answer to Question 1

$12.05

Answer to Question 2

$9.55

Answer to Question 3

$16.25

Answer to Question 4

$5.10

Answer to Question 5

$32.60

Answer to Question 6

$1.80

Activity 9

Answer to Question 1

$22.00

Answer to Question 2

$20.00

Answer to Question 3

$36.00

Answer to Question 4

$6.00

Answer to Question 5

$63.00

Answer to Question 6

$2.00

Activity 10

Answer to Question 1

a. 57 km
b. 49 km
c. 9 km

Answer to Question 2

a. 940 km
b. 780 km
c. 350 km

Answer to Question 3

a. 400 km
b. 700 km
c. 400 km

Answer to Question 4

a. 5 hours
b. 9 hours
c. 9 hours
d. 1 hour

Activity 11

Answer to Question 1

Answers will vary.

Answer to Question 2

Answers will vary.

Answer to Question 3

Answers will vary.

Activity 12

For example, estimating how much it would cost to:

- go out for dinner at a restaurant
- run a car each week
- go to the dentist
- buy and care for a dog.

Activity 13

Answer to Question 1

Answers will vary.

Answer to Question 2

Answers will vary, but may be between $20 and $30.

Answer to Question 3

For example, $15 + $3 + $5 = $23

Answer to Question 4

For example, $15 + $20 + $30 = $65

(Exact answer is: $67.30)

Activity 14

Answer to Question 1

125 + 116 + 115 + 120 + 119 = 595 cm

595 ÷ 5 = 119 cm

Answer to Question 2

1,000 + 700 + 900 + 600 + 600 + 800 + 1,500 = 6,100

6,100 ÷ 7 = $871.43

Answers to Check your learning

Answer to Question 1

a. 100 and 1000 both contain the digits 1 and 0, they both begin with a 1 and end with a 0, but 1000 has an extra 0.

b. $7.75 and $5.77 both contain two 7s and one 5 and are made up of three digits; however, the order of the digits is different.

Answer to Question 2

12, 121, 226, 391, 795, 852

Answer to Question 3

6412, 1019, 999, 704, 101, 19

Answer to Question 4

Multiples of two: 12, 4, 222, 144, 98, 20

Multiples of three: 12, 15, 57, 69, 333, 222, 144

Answer to Question 5

a. $50.00

b. $20.00

Answer to Question 6

a. $400.00

b. $200.00

Answer to Question 7

a. $2,000

b. $10,000

Answer to Question 8

a. Answers will vary.

b. Answers will vary.

c. Answers will vary.

Answer to Question 9

For example, $1.00 + $9.00 + $3.00 + $3.00 = $16

About $16.00

Answer to Question 10

$1000 ÷ about $100 = about 10 months

Answer to Question 11

a. 27 + 35 + 39 + 67 + 87 = 255 kg

255 ÷ 5 = 51 kg

b. 17 + 18 + 20 + 18 + 18 + 20 + 17 = 128

128 ÷ 7 = 18.3 lollies

