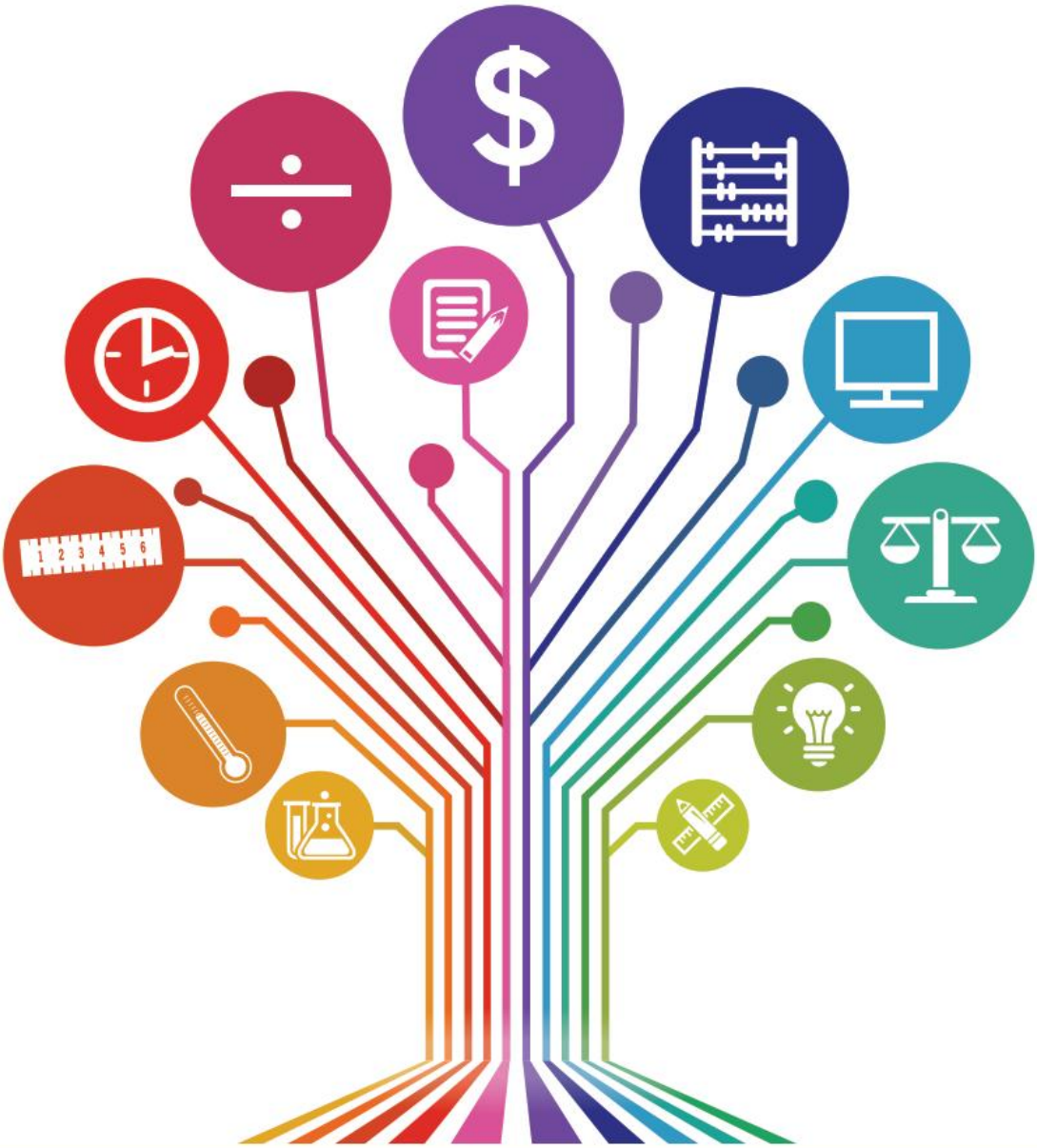
Pre-employment skills

Understanding length and time



Learner guide

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Pre-employment skills

Understanding length and time

Version 1.1

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Understanding length and time

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

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Contents

Measuring length – centimetres and millimetres

When we measure an object from one end to another end we say we are measuring its length. Other words used when talking about length are:

- height: measuring something from top to bottom
- width: measuring from side to side
- depth: measuring from front to back.

Small objects are measured in centimetres (cm) and millimetres (mm). Millimetres are the smallest everyday units of measurement. There are 10 mm in every centimetre.

Look at the line below. It is divided into millimetres and centimetres.

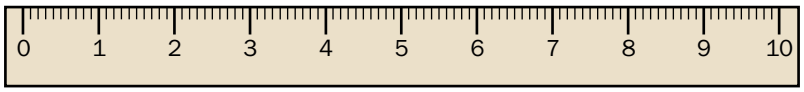
Measuring instruments

There are many instruments (tools) we can use to measure small objects and distances. Here are the most common instruments.

What it looks like	What it is
	Ruler – it measures millimetres and centimetres
	Tape measure – it measures millimetres, centimetres and metres
	Dressmaker's tape – it measures millimetres, centimetres and metres

How to measure

Look at the ruler with the millimetres and centimetres marked.



When you measure something, always start at the zero on the ruler or tape measure. Line up the start of the object you are measuring with the zero on the ruler. Then look at where the object ends and line this up with the number on the ruler. This is the measurement of how long your object is.

When measuring with a dressmaker's tape, do the same thing as for a ruler. However, because the dressmaker's tape is more like a ribbon (not flat and stiff), you need to pull it tight to measure accurately (exactly).

Story

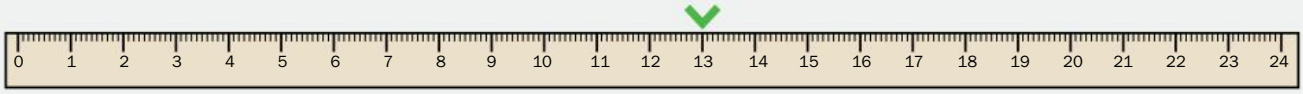
Jane has offered to help out at her daughter's school by making costumes for the school concert. Jane feels nervous because she knows there is a lot of measuring involved and this can be confusing. Her daughter's teacher tells her that Jane only has to measure the smaller costumes and should use millimetres and centimetres. She also gives Jane a ruler and a dressmaker's tape to use.

Activity 1

1. Think of objects you may have seen measured in millimetres and centimetres. Remember the measurements may have been shortened to mm and cm. Write down three things you have seen or know that have these measurements. For example, a photo frame.

2. Look at the pictures of the rulers below. Under each one, write what measurement the arrow is pointing at.

a.



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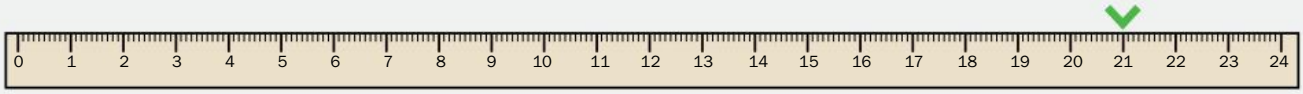

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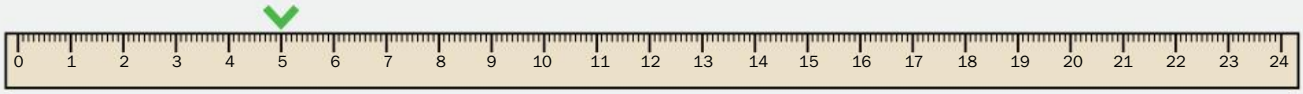

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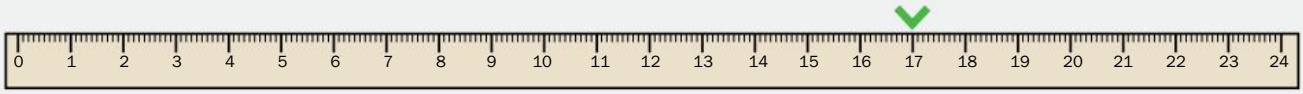


Click to complete Activity 1

Millimetres into centimetres

When you are measuring, you may have to give a measurement in centimetres. If you have measured in millimetres, what do you do?

You know there are 10 millimetres in each centimetre. So all you have to do is divide the millimetres by 10. For example, what is 40 mm in centimetres?

40 ÷ 10 = 4 cm

If the number of millimetres ends in zero (0), you can just remove one zero to find the centimetres.

750 mm = 75 cm

Activity 2

Jane has been given the measurements for the costumes in millimetres. Convert each measurement into centimetres.

1. Headbands are 300 mm = _____ cm
2. Length of skirts is 500 mm = _____ cm
3. Belts are 450 mm = _____ cm
4. Capes are 800 mm = _____ cm

Click to complete Activity 2

Centimetres into millimetres

You may also have to change centimetres into millimetres. To do this, you multiply the centimetres by 10 to find the millimetres, instead of dividing. So for 60 cm:

60 cm × 10 = 600 mm

Or, you can just add a zero to the number:

12 cm = 120 mm

Activity 3

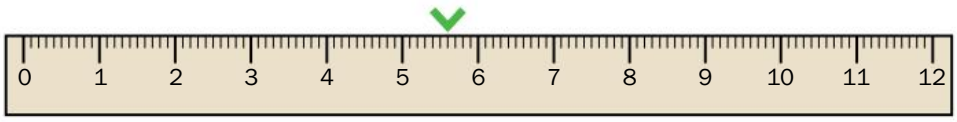
Convert the following measurements into millimetres:

1. 7 cm = _____ mm
2. 90 cm = _____ mm
3. 60 cm = _____ mm
4. 100 cm = _____ mm

Click to complete Activity 3

Centimetres and millimetres together

Sometimes when measuring an object, its length may not be exactly on a centimetre. In this case you need to combine centimetres and millimetres in the measurement. Look at the line below.



The point marked on this line is 5 cm and 6 mm long. You can also write it as 5.6 cm. This uses a decimal point, which looks like a full stop.

The whole number of centimetres is written first (5).

Then the decimal point (.).

Then the fraction (or part) of a whole centimetre (6) is written next.

So 5 cm and 6 mm = 5.6 cm

Note: decimals are covered in detail in Aspire's learner guide *Fractions, percentages, decimals – basic*.

Activity 4

Write each of these measurements in centimetres using a decimal point. Ask your trainer if you need help.

1. 10 cm and 4 mm = _____
2. 16 cm and 2 mm = _____
3. 15 cm and 7 mm = _____
4. 28 cm and 5 mm = _____

Click to complete Activity 4

Length – metres and kilometres

When measuring, some distances are far too long to use millimetres and centimetres. So, when measuring longer distances, we use metres and kilometres. When writing, metres is shortened to m and kilometres is shortened to km.

You already know that there are 100 cm in one metre. There are 1000 m in one kilometre.

10 mm = 1 cm
100 cm = 1 m
1000 m = 1 km

Measuring instruments

As with smaller distances and objects, large distances are measured with certain instruments. Some instruments used to measure metres are:

- tape measures
- metre rulers
- trundle wheels.

You have already learnt about tape measures and rulers, but have you ever used a trundle wheel?

This is a wheel attached to the bottom of a stick. As you wheel it along, it clicks at every metre. So the distance around the outside of the wheel is one metre.

An instrument used to measure kilometres is an odometer. You can find an odometer in a car and most forms of transport. A car's odometer starts at zero when it is brand new and counts each kilometre that the car travels. Next time you are in a car, look for the odometer on the driver's side.

The same rules apply to measuring metres as with measuring millimetres and centimetres. Always make sure the tape measure is in a straight line and that the tape measure or trundle wheel begins measuring at zero.

When measuring kilometres, you can set the odometer to zero to give you an accurate measurement.

Story

Jane also offers to help with the props and the backdrops for her daughter's concert. Her daughter's teacher suggests that Jane measures the stage so she knows how big the backdrops should be. Jane now knows how to measure accurately after making all the costumes. She used a small ruler to help her with the costumes, but wonders if there is something better to help her measure the stage. The teacher gives Jane a trundle wheel and a 30-metre-long tape measure. She also tells Jane that when measuring long distances with a tape measure, it is helpful to have someone hold one end of the tape.

Activity 5

Complete the three sentences below, using the correct ending from the box.

Less than 1 metre
More than 1 metre
About 1 metre

1. A bus is _____
2. A television is _____
3. A letter is _____

Click to complete Activity 5

Centimetres to metres

When you are measuring, you may have to convert centimetres into metres. You know there are 100 centimetres in each metre. So all you need to do is divide the centimetres by 100. For example, what is 400 cm in metres?

400 cm ÷100 = 4 m

Or, if the number of the centimetre measurement ends in two zeros, you can just remove two zeros to find the metres. (This is the same as dividing by 100.)

700 cm = 7 m

Activity 6

Jane's tape measure doesn't have one metre marked on it – it just has centimetres. Convert these measurements in centimetres into metres, to make it easier for Jane to write.

1. 500 cm = _____
2. 200 cm = _____
3. 700 cm = _____
4. 400 cm = _____
5. 1000 cm = _____

Click to complete Activity 6

Centimetres and metres together

As mentioned earlier, some measurements aren't measured exactly to the centimetre. The same applies for metres. For example, an object may be 4 metres and 40 centimetres. On the tape measure, it may say 440 cm. We can also convert this to 4.40 metres.

Remember, the whole number of metres is written first (4).

Then the decimal point (.).

Then the fraction (or part) of a whole metre (40) is written next.

So 4 metres and 40 cm = 4.40 m

Activity 7

Convert the following measurements. The first one has been done for you. Remember, there are 100 cm in a metre.

Measurement	Centimetres	Metres
3 m and 50 cm	350 cm	3.5 m
2 m and 20 cm		
8 m and 90 cm		
5 m and 10 cm		
6 m and 40 cm		
4 m and 60 cm		

Click to complete Activity 7

Kilometres

All the jobs Jane needed to do for the concert were small enough to measure in metres. But remember, larger distances are measured in kilometres.

Kilometre measurements are usually used when travelling from one place to another. One example of where you see and hear about kilometres is when driving.

Activity 8

Can you think of any other places where you have seen signs that mention kilometres (km)? List these below.

_____

_____

_____

_____

Click to complete Activity 8

Measurement

Now you know about the different measurements there are to measure things. But you also need to learn how to choose the best unit of measurement for your needs. For example, would it be best to measure a room in metres or centimetres? Sometimes it may be a combination of both. When measuring something, it is important to choose the right unit of measurement, so you measure and record as accurately as possible.

Activity 9

1. Write the abbreviations for the following units of measurement:
   a. Centimetres = _____
   b. Kilometres = _____
   c. Millimetres = _____
   d. Metres = _____
2. Which unit would you choose to measure the following things:
   a. The length of your finger _____
   b. The thickness of a coin _____
   c. The length of the Murray River _____
   d. The width of a basketball court _____
   e. The height of a building _____
   f. The distance from Melbourne to Perth _____

Click to complete Activity 9

Story

Jane and David are building a new fence at the back of their house. They want to save money, so they're going to do all the work themselves. They can't afford to waste any of the materials, so they need to measure very carefully. They decide a tape measure is the best instrument for them to use.

Jane and David decide that their fence should be a bit longer than the width of the house, which is 7 metres. The height of the fence is 1.8 m. They go to the hardware shop to by the timber palings and find that they are 160 mm wide. They need to calculate how many they need to build an 8-metre fence.

Activity 10

1. Convert the following measurements from millimetres to centimetres and metres. Note: some measurements may not even be a metre. If there is not a whole metre, put a zero before the decimal point. The first one has been done for you.

Millimetres	Centimetres	Metres
750 mm	75 cm	0.75 m
1800 mm		
2000 mm		
900 mm		
160 mm		
1000 mm		
500 mm		

2. Now that you have converted the 160 mm into 16 centimetres, can you work out how many palings are needed to build Jane and David's 8-metre fence? Hint: convert 8 m into centimetres.

Click to complete Activity 10

Estimating

Sometimes you may not have any instruments to measure with. If this is the case, you need to estimate (guess) how long something is. Look around your house and practise estimating the length of some objects. Then use a tape measure and check to see how close your estimate is.

Activity 11

Use the measurements in the box below to estimate the measurement closest to each object.

20 m	2.5 m	10 mm
20 cm	2 cm	75 cm

1. A pencil _____
2. The height of a 1-year-old child _____
3. The height of a door _____
4. The width of a stamp _____
5. The length of a tennis court _____
6. The thickness of a piece of bread _____

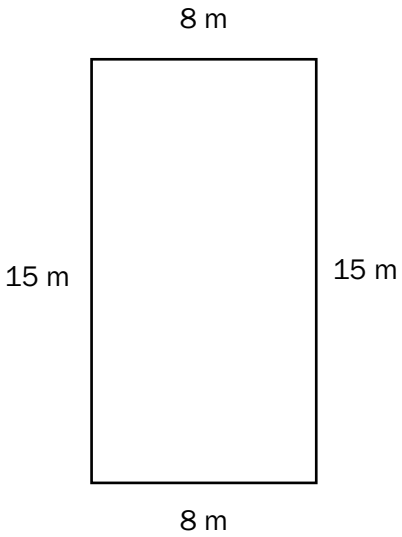
Click to complete Activity 11

Perimeter

Perimeter is the length or distance around the outside of an object. To measure perimeter, you need to measure all the sides of an object and then add them together.

Jane and David decide to put a fence around their whole property. This means they are putting a fence around the perimeter. They already know that the back fence is 8 metres wide. Now they just have to measure the other three sides.

These are the measurements they come up with:



Back fence = 8 m

Front fence = 8 m

Right-side fence = 15 m

Left-side fence = 15 m

Calculate the perimeter of their property by adding these measurements together.

8 + 8 + 15 + 15 = 46

Perimeter = 46 m

Activity 12

Calculate the perimeter for each of the following.

1. A netball court = 2 sides are 30 m each

   2 ends are 15 m each

   Perimeter = _____

2. A square table = all 4 sides are 90 cm

   Perimeter = _____

Click to complete Activity 12

Time

Something else we need to measure is time. We use time to measure how long something takes. Like measuring distances with centimetres and metres, time is also measured in standard units.

The standard units used to measure time are:

- seconds
- minutes
- hours
- days
- weeks
- months
- years.

Here is a conversion chart to help you.

Conversion chart

60 seconds = 1 minute

60 minutes = 1 hour

24 hours = 1 day

7 days = 1 week

4 weeks (approximately) = 1 month

12 months = 1 year

Instruments to measure time

There are also instruments to measure time. You may not have thought of them as measuring time before, but they do. These all measure time:

- Clocks – analog and digital
- Watches
- Stopwatches

Story

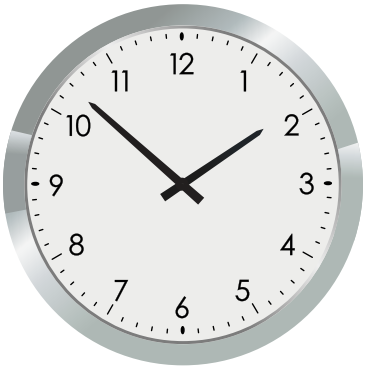
Jane and her family are going on holidays. She has planned activities to do every day. Her son wants to know how long they are going for and how long the activities are going to take. He has trouble understanding the concept of time, so Jane sits down with the plan of their holiday and goes through everything with him.

Jane first explains to her son how a clock is used to tell the time. He has seen a digital clock, but not an analog clock.

Telling the time – analog clocks

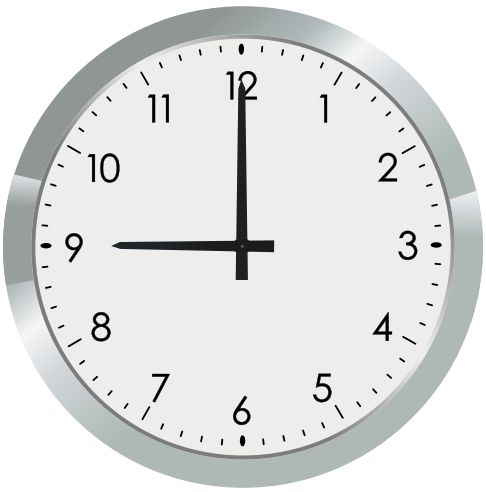
There are 12 numbers on a clock – one number for each hour of the day. However, each of these numbers also represents 5 minutes, because 12 × 5 minutes = 60 minutes (or one hour).

There are two or three hands on a clock. The long hand tells us the minutes and the small hand tells us the hour. Some clocks also have a very thin hand, which tells us the seconds.



When telling the time, it helps to think of a clock as a circle divided in half and in quarters.

When the big hand is on the 12, it is exactly on the hour (or o'clock). The hour is whatever number the small hand is pointing to.

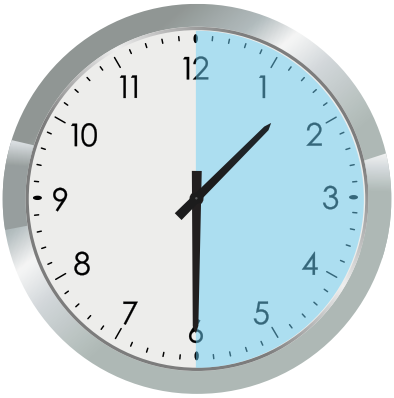


This clock says 9 o'clock.

When the big hand is on the 3, it is a quarter past the hour that the small hand is pointing to.

This clock says a quarter past 10.

When the big hand is on the 6, it is half past the hour that the small hand is pointing to.



This clock says half past 1.

When the big hand is on the 9, it is a quarter to the hour that the small hand is closest to.

This clock says a quarter to 6.

Remember, each number on the analog clock equals 5 minutes, so pointing to the 1 is 5 minutes past, the 2 is 10 minutes past and the 5 is 25 minutes past.

Activity 13

Look at the following clocks and write what time they are showing.

1. 

2. 

3. 

Click to complete Activity 13

Telling the time – digital clocks

A digital clock displays the time with the hour first and then the minutes. For example, eight twenty (or 20 minutes past 8) is displayed as 08:20.

Half past one (or one thirty) is displayed as 1:30, because 30 is half of 60 minutes – or 1 hour.

25 minutes past two is shown like this on a digital clock:

Activity 14

Convert the following times from the analog clocks to the same time that would be displayed on a digital clock.

1. 

2. 

3. 

4.

:

5.

:

Click to complete Activity 14

Story

Jane's son looks at her plane ticket and asks why their flight time is written as 14:30. He asks if that means half past 14. Jane explains that sometimes the time is shown on a 24-hour clock, to avoid confusion.

24-hour time

24-hour time counts each hour of the day from 1 to 24. With 24-hour time, the hours are counted from 1 until 12 and then instead of starting at 1 again (in the afternoon) you keep counting and say 1 o'clock in the afternoon is 13 or 1300 hours. So, 2 o'clock in the afternoon is 1400 hours and 7 o'clock at night is 1900 hours. This is shown on a clock as 19.00.

Here is a conversion chart for 24-hour time. Remember, 'am' means the time from 12 midnight until 12 midday. 'Pm' means the time from 12 noon until 12 midnight. After 12 midnight, we begin a new day.

1 am	0100
2 am	0200
3 am	0300
4 am	0400
5 am	0500
6 am	0600
7 am	0700
8 am	0800
9 am	0900
10 am	1000
11 am	1100
12 noon	1200

1 pm	1300
2 pm	1400
3 pm	1500
4 pm	1600
5 pm	1700
6 pm	1800
7 pm	1900
8 pm	2000
9 pm	2100
10 pm	2200
11 pm	2300
12 midnight	2400

Converting time

Jane and her family are going on holidays for 21 days. Her son wants to know how many weeks that is. There are 7 days in each week, so she just needs to divide 21 by 7:

21 ÷ 7 = 3 weeks.

Activity 15

1. Calculate how many days the following number of weeks are. Hint: do the opposite to calculating the weeks and multiply the number of weeks by 7 instead of dividing.

Weeks	Days
2 weeks	
4 weeks	
1 week	
12 weeks	

2. Look at the list of activities below, which Jane and her family are going to do in one day. Add up how many minutes in total the activities take. Then, convert the minutes into hours.
   - Horse riding – 45 minutes
   - Surfing lessons – 60 minutes
   - Rest for snack – 15 minutes
   - Shopping – 30 minutes
   - Tour of the museum – 30 minutes
   - Lunch – 60 minutes

Total hours =_____

Click to complete Activity 15

Calendars

Calendars also show time. A calendar is a record of the days, weeks and months to come. For example, if your birthday is on 8 September, you would look at the month of September on the calendar and find the number 8. This tells you what day your birthday is on. There are 12 months in each year.

Here is a calendar for September 2016.

September 2016						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Each month has a different number of days. Here is a rhyme to help you remember the number of days in each month.

> 30 days has September, April, June and November,
>
> All the rest have 31, except February alone,
>
> which has 28 days clear
>
> and 29 days each leap year.

Note: a leap year occurs when February has 29 days instead of 28. This happens every 4 years and means there is an extra day in that year (366 days instead of 365). The year 2016 was a leap year, so the next leap year is in 2020.

Activity 16

Use a calendar, or the previous rhyme, to write down how many days there are in each of the following months.

1. September = _____
2. January = _____
3. May = _____
4. November = _____
5. February 2015 = _____

Click to complete Activity 16

What you have learnt

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

- ☐ Units of measurement include: millimetres (mm), centimetres (cm), metres (m) and kilometres (km).
- ☐ Common measuring instruments are rulers, tape measures, dressmaker's tape, trundle wheels and odometers.
- ☐ To convert millimetres to centimetres, divide by 10; to convert centimetres to millimetres, multiply by 10.
- ☐ To convert centimetres to metres, divide by 100; to convert metres to centimetres multiply by 100.
- ☐ When writing centimetres and millimetres together, use a decimal point after the whole number of centimetres and then write the millimetres (the fraction of centimetres) after the decimal point.
- ☐ Perimeter is the length or distance around the outside of an object, which is calculated by adding all the sides together.
- ☐ Time is measured in seconds, minutes, hours, days, weeks, months and years.
- ☐ Clocks (analog and digital), watches and stopwatches measure time.
- ☐ Time is expressed in 12-hour time or 24-hour time.
- ☐ A calendar is a record of the days, weeks and months to come.

Check your learning

Answer the following questions.

1. Write the following measurements in both centimetres and millimetres.

Centimetres	Millimetres
25 cm	
6.4 cm	
	330 mm
13.8 cm	
	200 mm
	45 mm
30 cm	
	155 mm

2. What units of measurement would you use to measure the following distances? Tick the box with the correct answer.

Distance	Metres	Kilometres
Length of a swimming pool		
Distance from Melbourne to Sydney		
Distance of an Olympic marathon		
Length of a basketball court		
Distance from one goal post to another on a football field		

Distance	Metres	Kilometres
Length of a truck		
Distance from Australia to America		

3. Put the following distances in order from shortest to longest. Note: you may need to convert the distances before you put them in order.

Distance	Correct order
6 m	
23 km	
190 m	
680 m	
1.5 km	
0.5 km	
440 m	
5.8 km	

4. Convert the following measurements from one unit of measurement to another as shown.

   For example, 125 cm = 1.25 metres

   a. 1500 m = _____ km

   b. 17 mm = _____ cm

   c. 3.2 m = _____ cm

   d. 4.3 km = _____ m

   e. 160 cm = _____ m

   f. 50 cm = _____ mm

5. Calculate the following:

   a. How many laps of a 25-metre pool you would need to swim, to swim 1 kilometre?

   _____

   b. How many chairs you can fit across one row if a room is 5 metres wide and each chair is 50 centimetres wide?

   _____

   c. You have 20 plants to plant in a garden bed, which is 4 metres wide. How far apart should you plant them for them to be evenly spaced?

   _____

   d. What size shelf you should buy to fit 10 boxes if each box is 30 cm in width? Write your answer in metres.

   _____

6. Choose the most appropriate unit of measurement to fill in the gap.

   a. A plate is about 4 _____ thick.

   b. The height of a gum tree may be about 8 _____.

   c. The distance from Melbourne to Sydney is about 876 _____.

   d. The width of an envelope is about 20 _____.

   e. An Olympic swimming pool is 50 _____ long.

7. Draw in the hands on the following clocks to show the time.

a. 

Two o'clock.

b. 

Half past five.

c. 

A quarter past 7.

d. 

A quarter to one.

8. Convert these times from a 24-hour clock to a 12-hour format. The first one has been done for you. Don't forget to write am or pm.

24-hour time	12-hour time
1630	4.30 pm
2100	
0800	
1530	
0400	
2215	

9. Look at the calendar below and answer the following questions.

September 2016						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

a. On what day is 8 September?

_____

b. What is the date of the first Wednesday in September?

_____

c. What date is it one week after 10 September?

_____

d. What is the last day and date in September?

_____

Click to complete

Answers

Answers to activities

Activity 1

Answer to Question 1

Answers will vary, but may include: television screens, waist measurements, your height, most building materials, dress fabric, tiles, tablecloths, towels and bikes.

Answer to Question 2

a. 13 cm

b. 21 cm

c. 5 cm

d. 17 cm

Activity 2

Answer to Question 1

30 cm

Answer to Question 2

50 cm

Answer to Question 3

45 cm

Answer to Question 4

80 cm

Activity 3

Answer to Question 1

70 mm

Answer to Question 2

900 mm

Answer to Question 3

600 mm

Answer to Question 4

1000 mm

Activity 4

Answer to Question 1

10.4 cm

Answer to Question 2

16.2 cm

Answer to Question 3

15.7 cm

Answer to Question 4

28.5 cm

Activity 5

Answer to Question 1

More than 1 metre

Answer to Question 2

About 1 metre

Answer to Question 3

Less than 1 metre

Activity 6

Answer to Question 1

5 m

Answer to Question 2

2 m

Answer to Question 3

7 m

Answer to Question 4

4 m

Answer to Question 5

10 m

Activity 7

Measurement	Centimetres	Metres
3 m and 50 cm	350 cm	3.5 m
2 m and 20 cm	220 cm	2.2 m
8 m and 90 cm	890 cm	8.9 m
5 m and 10 cm	510 cm	5.1 m
6 m and 40 cm	640 cm	6.4 m
4 m and 60 cm	460 cm	4.6 m

Activity 8

Answers may vary, but may include:

- maps
- road signs – with the distance to the next suburb or town
- airports – on planes to show how far you are flying
- speed-limit signs – 50 km/h, 100 km/h.

Activity 9

Answer to Question 1

a. cm

b. km

c. mm

d. m

Answer to Question 2

a. cm

b. mm

c. km

d. m

e. m

f. km

Activity 10

Answer to Question 1

Millimetres	Centimetres	Metres
750 mm	75 cm	0.75 m
1800 mm	180 cm	1.8 m
2000 mm	200 cm	2 m
900 mm	90 cm	0.9 m
160 mm	16 cm	0.16 m
1000 mm	100 cm	1 m
500 mm	50 cm	0.5 m

Answer to Question 2

Each paling is 160 mm or 16 cm wide.

The total width of the fence is 8 m or 800 cm.

So divide 800 by 16 to find how many palings.

800 ÷ 16 = 50 palings

Activity 11

Answer to Question 1

20 cm

Answer to Question 2

75cm

Answer to Question 3

2.5 m

Answer to Question 4

2 cm

Answer to Question 5

20 m

Answer to Question 6

10 mm

Activity 12

Answer to Question 1

30 + 30 + 15 + 15 = 90 m

Answer to Question 2

90 + 90 + 90 + 90 = 360 cm

Activity 13

Answer to Question 1

3 o'clock

Answer to Question 2

Half past two

Answer to Question 3

A quarter past 11

Activity 14

Answer to Question 1

4:10

Answer to Question 2

8:30

Answer to Question 3

11:20

Answer to Question 4

6:15

Answer to Question 5

3.05

Activity 15

Answer to Question 1

Weeks	Days
2 weeks	14 days
4 weeks	28 days
1 week	7 days
12 weeks	84 days

Answer to Question 2

45 + 60 + 15 + 30 + 30 + 60 = 240 minutes

240 minutes ÷ 60 = 4 hours

Activity 16

Answer to Question 1

30

Answer to Question 2

31

Answer to Question 3

31

Answer to Question 4

30

Answer to Question 5

28

Answers to Check your learning

Answer to Question 1

Centimetres	Millimetres
25 cm	250 mm
6.4 cm	64 mm
33 cm	330 mm
13.8 cm	138 mm
20 cm	200 mm
4.5 cm	45 mm
30 cm	300 mm
15.5 cm	155 mm

Answer to Question 2

Distance	Metres	Kilometres
Length of a swimming pool	✓	
Distance from Melbourne to Sydney		✓
Distance of an Olympic marathon		✓
Length of a basketball court	✓	
Distance from one goal post to another on a football field	✓	
Length of a truck	✓	
Distance from Australia to America		✓

Answer to Question 3

Distance	Correct order
6 m	6 m
23 km	190 m
190 m	440 m
680 m	0.5 km (500 m)
1.5 km	680 m
0.5 km	1.5 km (1500 m)
440 m	5.8 km (5800 m)
5.8 km	23 km (23000 m)

Answer to Question 4

a. 1.5 km

b. 1.7 cm

c. 320 cm

d. 4300 km

e. 1.6 m

f. 500 mm

Answer to Question 5

a. 1000 m ÷ 25 m = 40 laps

b. 500 cm ÷ 50 cm = 10 chairs

c. 400 cm ÷ 20 plants = 20 cm between each plant

d. 30 cm x 10 boxes = 300 cm

300 cm = 3 m

Answer to Question 6

a. mm

b. m

c. km

d. cm

e. m

Answer to Question 7

a. 

Two o'clock.

b. 

Half past five.

c. 

A quarter past 7.

d. 

A quarter to one.

Answer to Question 8

24-hour time	12-hour time
1630	4.30 pm
2100	9:00 pm
0800	8:00 am
1530	3:30 pm
0400	4:00 am
2215	10:15 pm

Answer to Question 9

a. Thursday

b. Wednesday 7 September

c. 17 September

d. Friday 30 September

