Maths

Session 1

Last week we looked at weight. This week we are looking at **capacity**.

What is capacity?

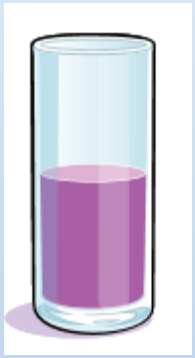
Capacity is a measurement of how much a container can hold.

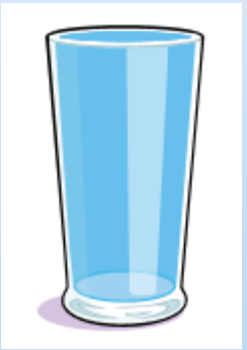
Key vocabulary:

Full Empty

Half full Half empty

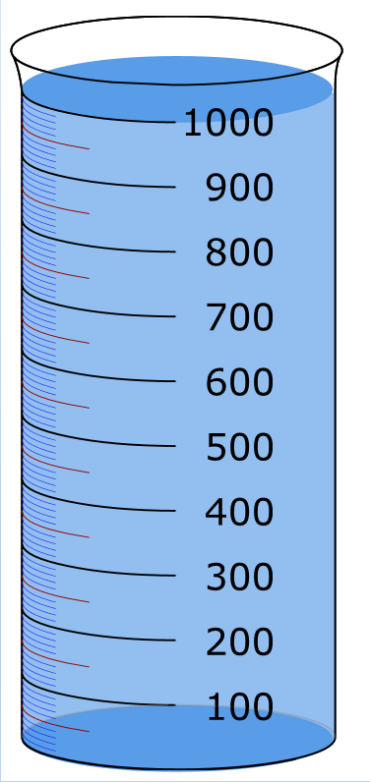
Half full Full Half empty Empty





Units of measure- Volume

We use the following units to measure volume/capacity.



Litres (l)

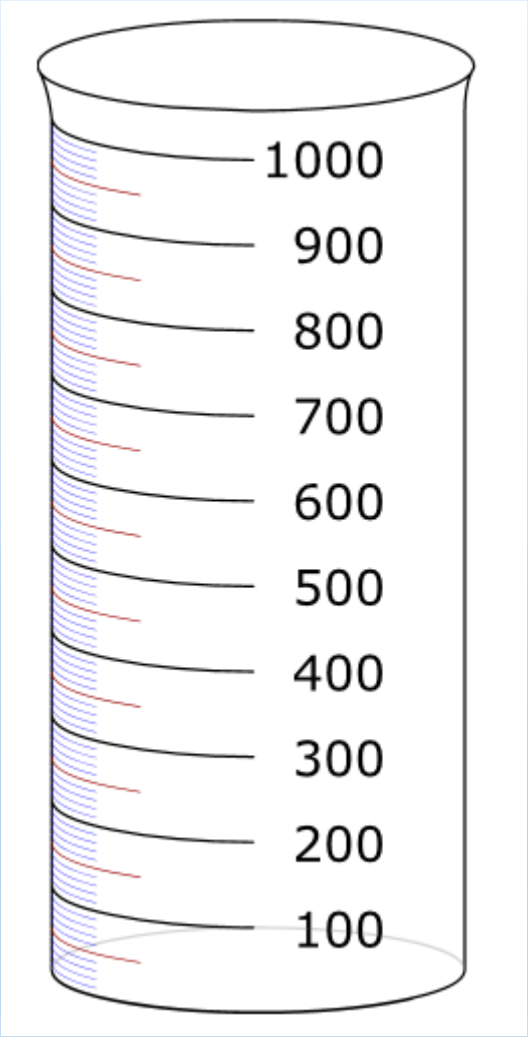
Millilitres (ml)

A **millilitre** is a very small amount of liquid.

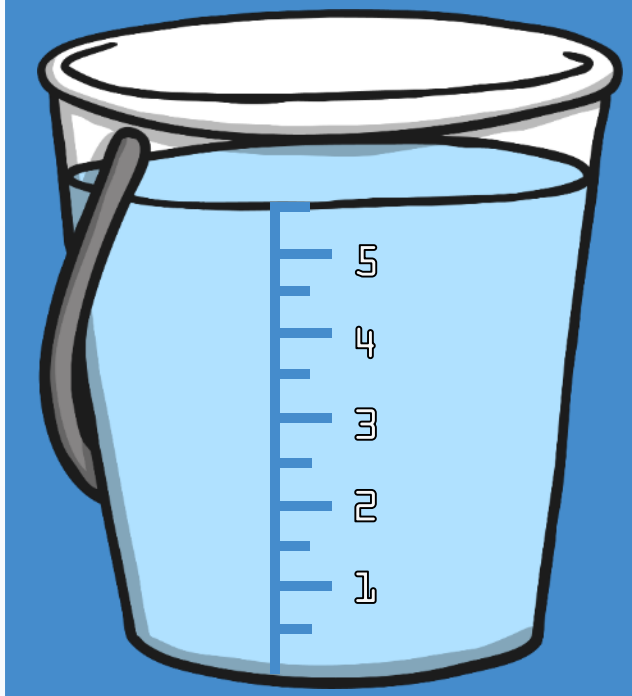
Here is a millilitre of milk in a teaspoon.

It only fills the bottom of the teaspoon!

We can use scales to measure capacity.



Reading Scales



Find zero

Look at the numbers

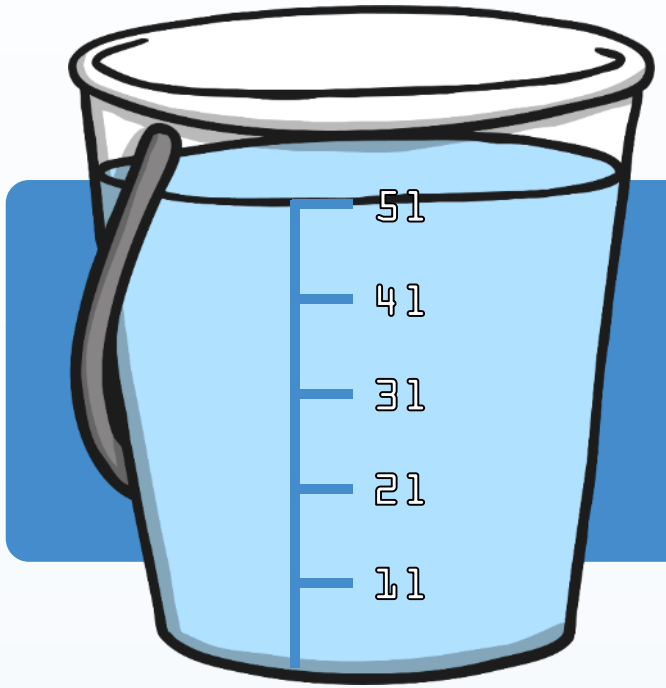
Do the numbers go up in ones?

Are there any extra lines between the numbers?

What do you think each extra line represents?

Test your theory by counting up the scale.

Reading Scales



Find zero

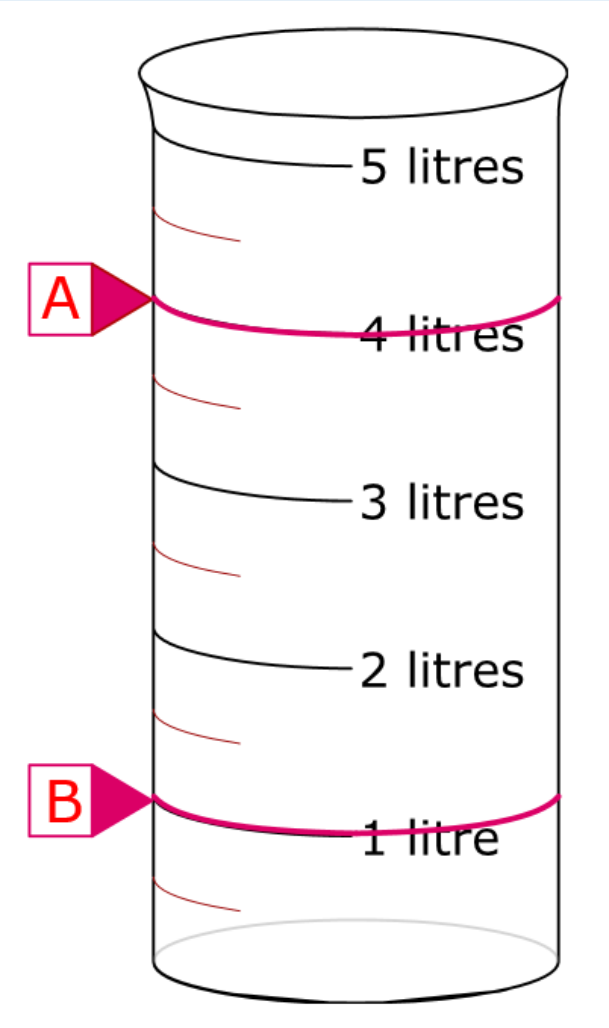
Look at the numbers

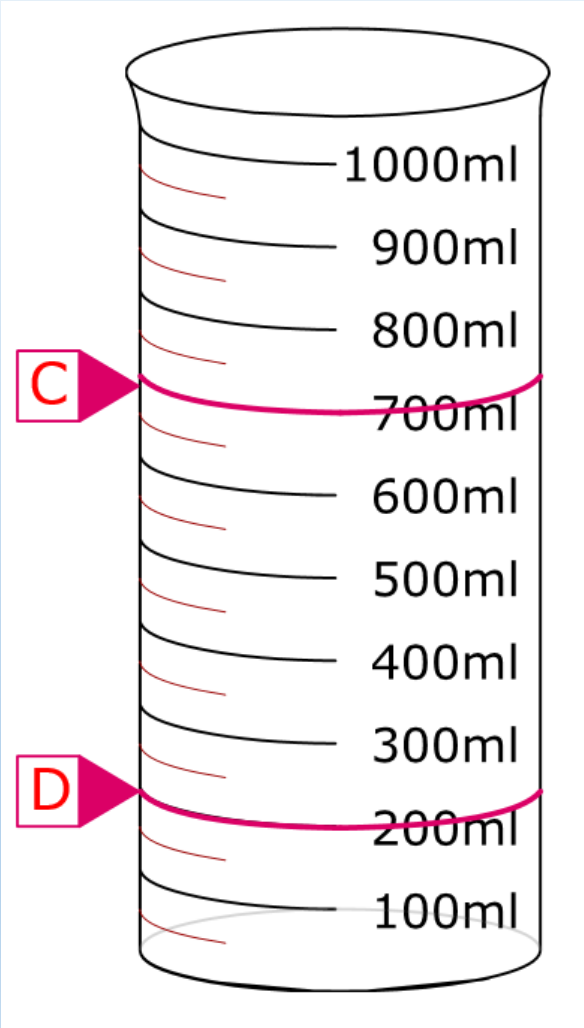
Do the numbers go up in ones?

This one is straightforward because all the lines are numbered.

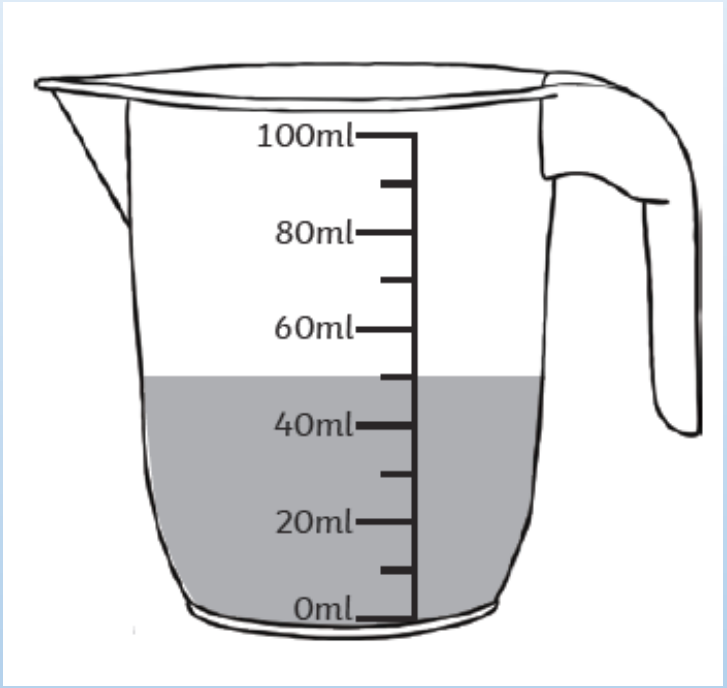
How much water is in the bucket?

What is the capacity?





Sometimes the scale doesn’t go up in jumps of 1.



Keep Using The Tips…

Find zero

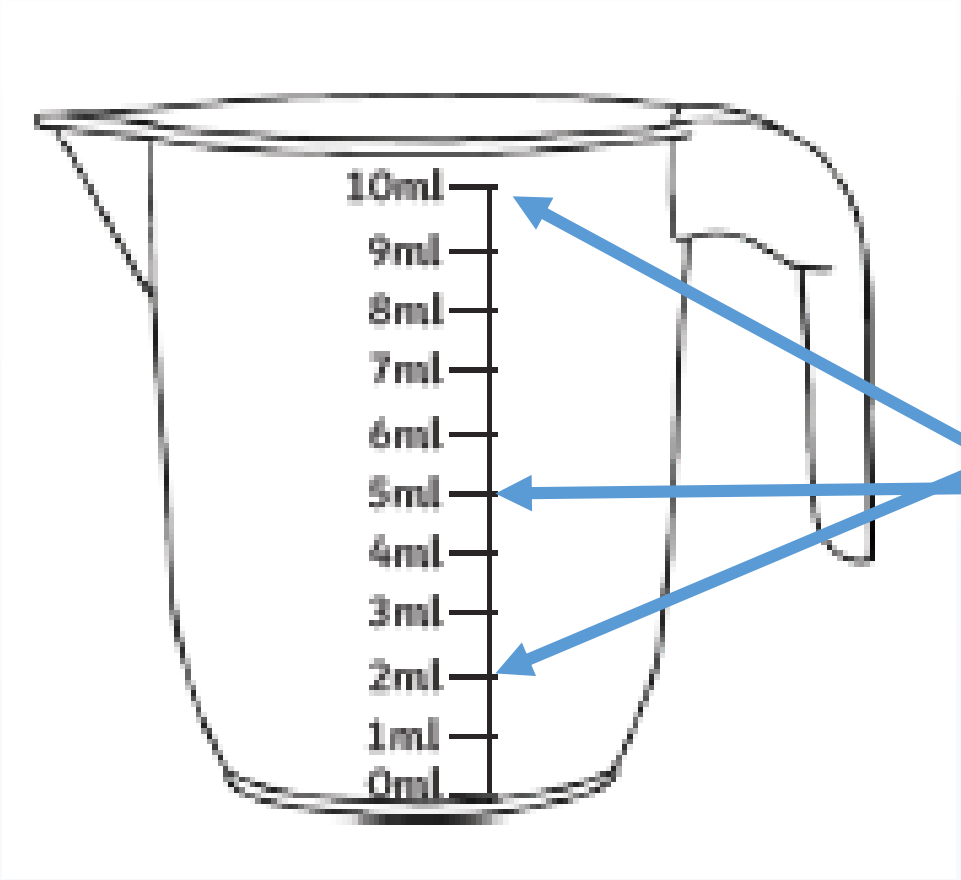
Look at the numbers – what do they go up in?

Are there any extra lines between the numbers?

What do you think they represent?

Test your theory by counting between the numbers

Where would the volume of water be for:

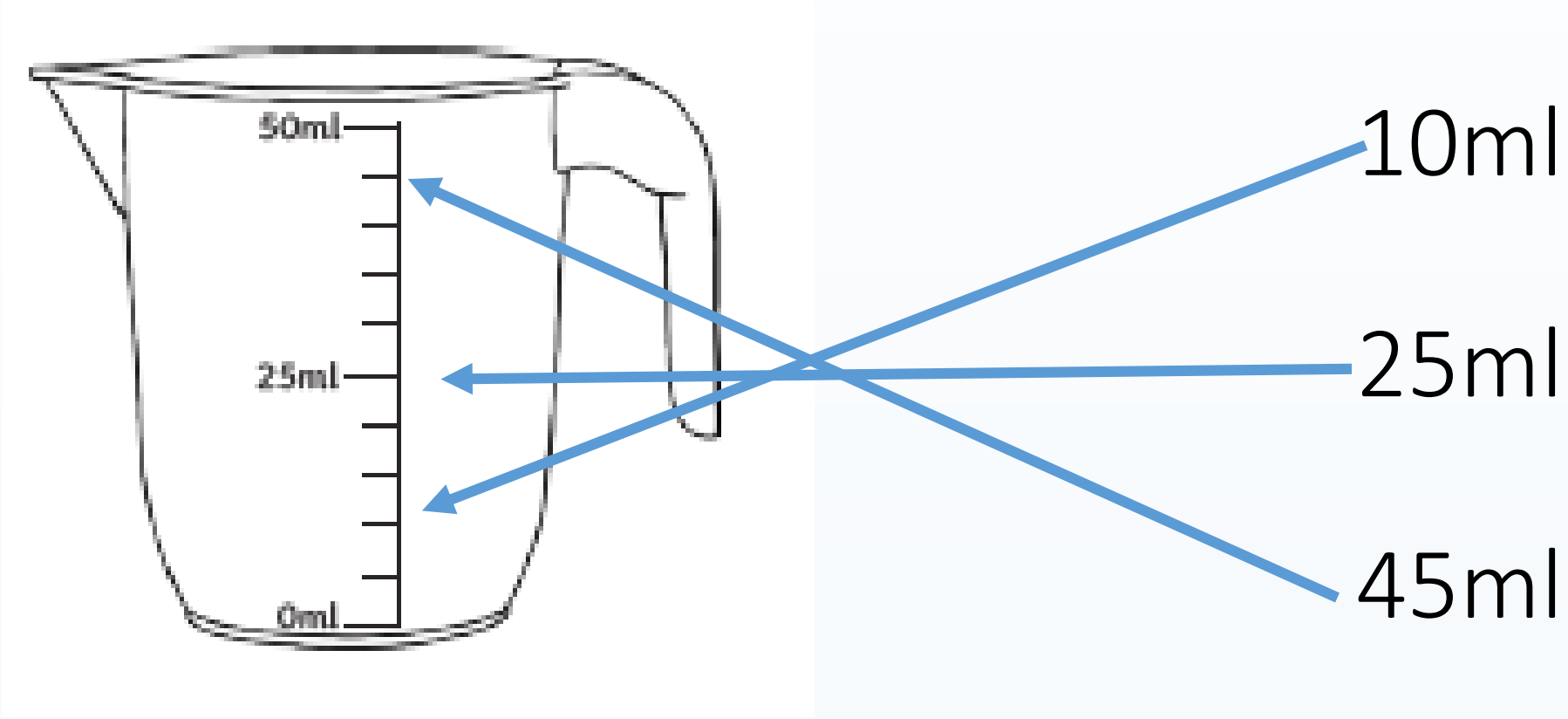


2ml

5ml

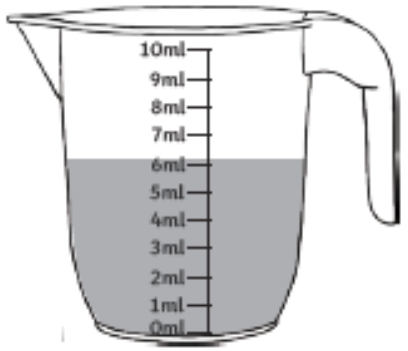
10ml

Where would the volume of water be for:



Session 1 - Task

Colour each jug to show the correct volume.



Example: 6ml

8ml

3ml

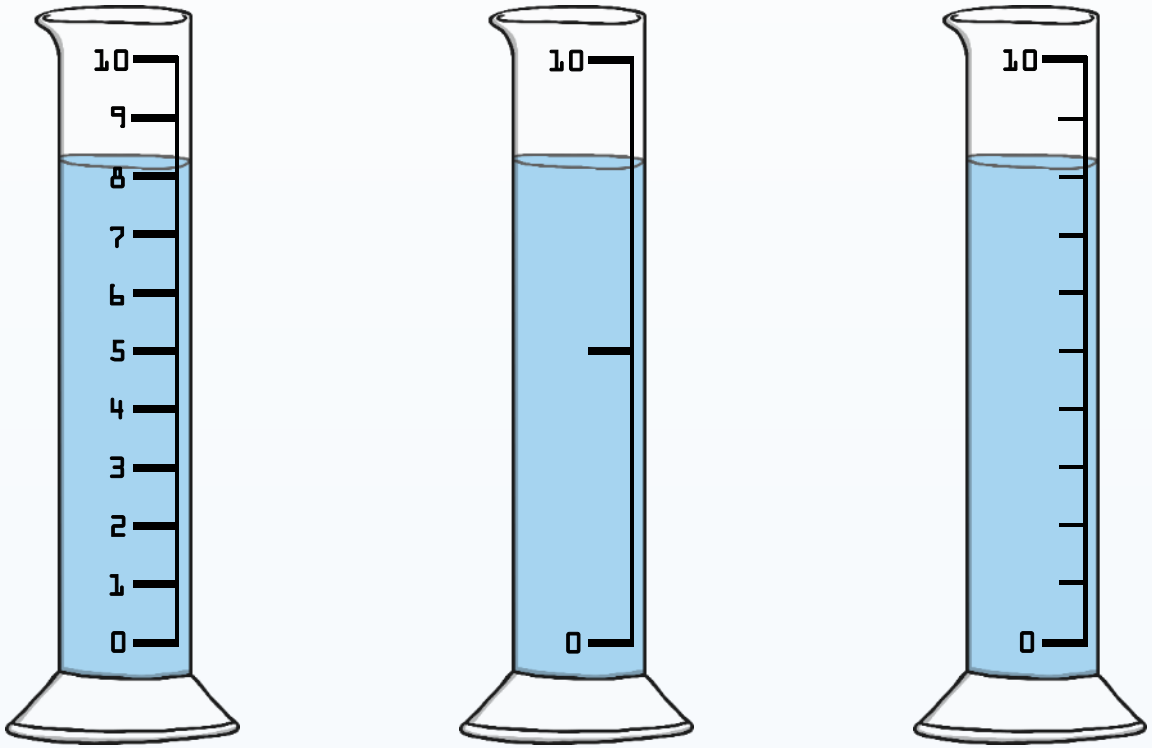
7ml

2ml

9ml

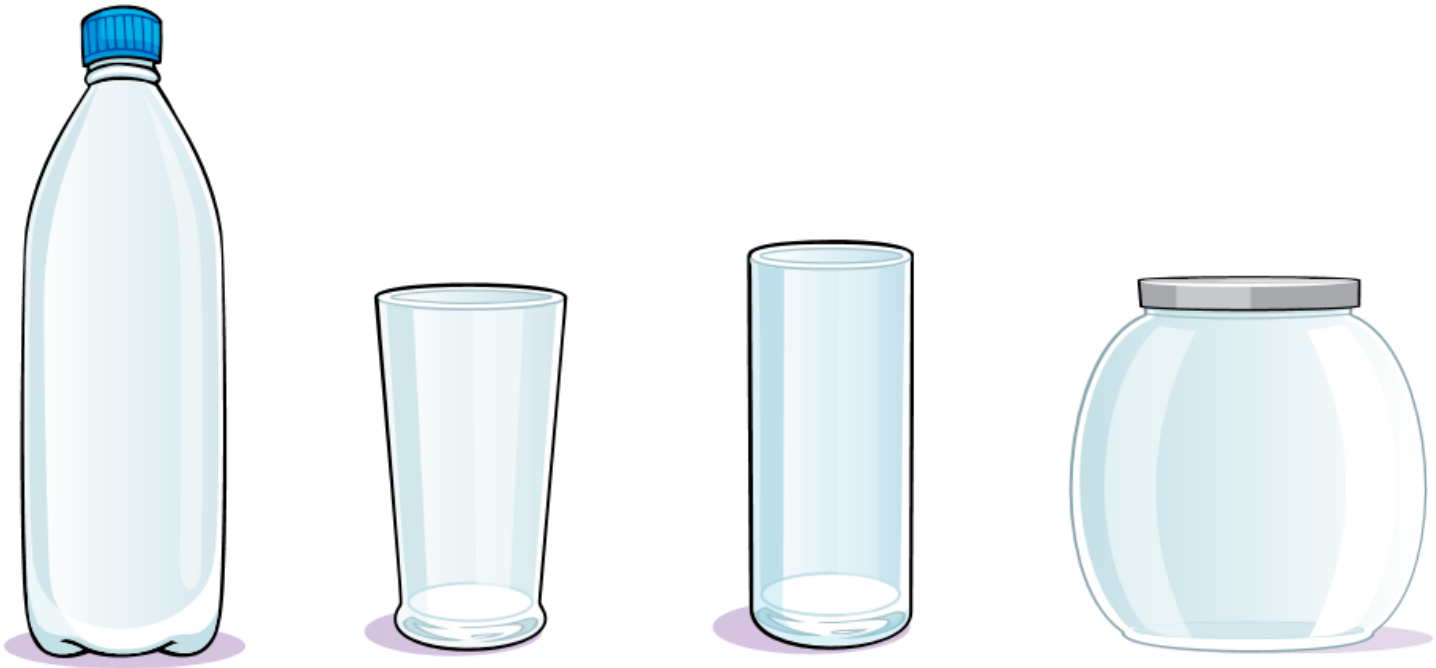
What is the same and what is different about these scales?

Challenge

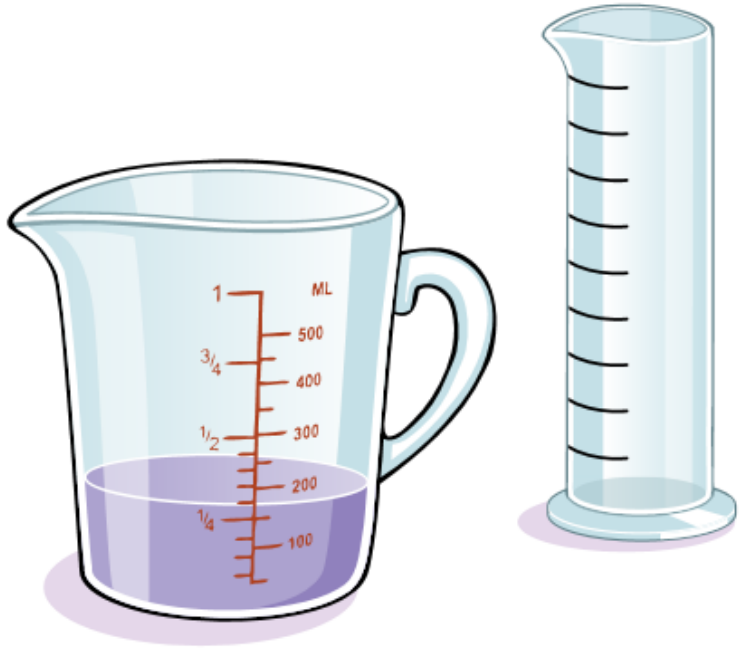


Session 2

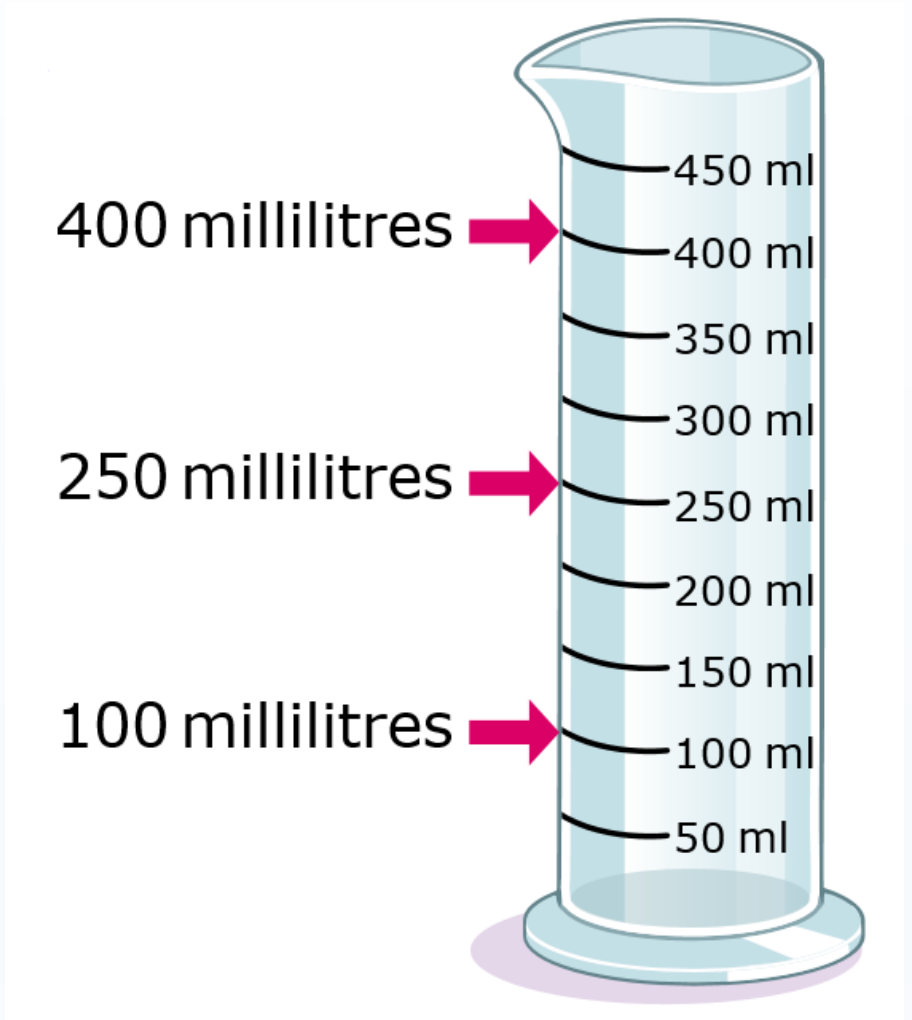
Capacity is the measurement of how much a container can hold.

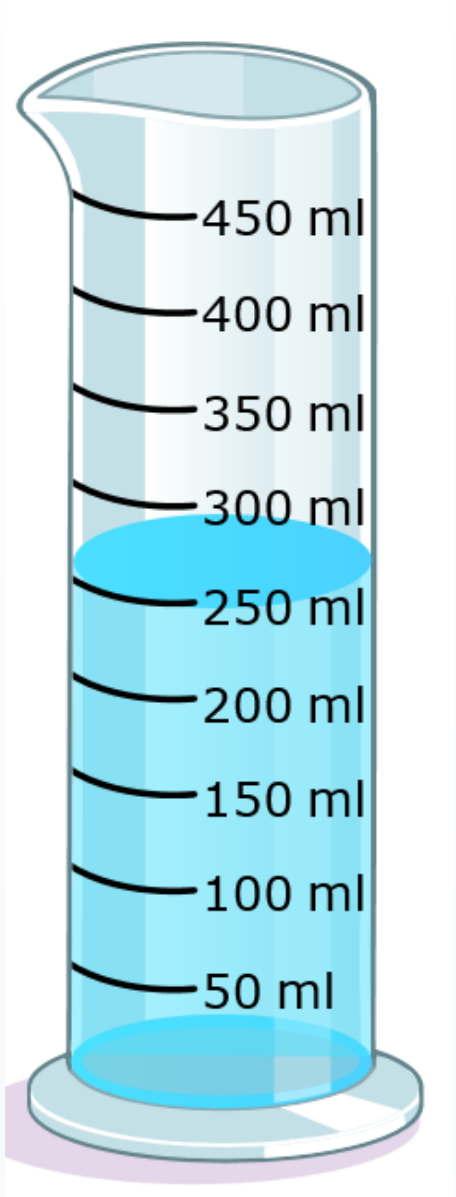


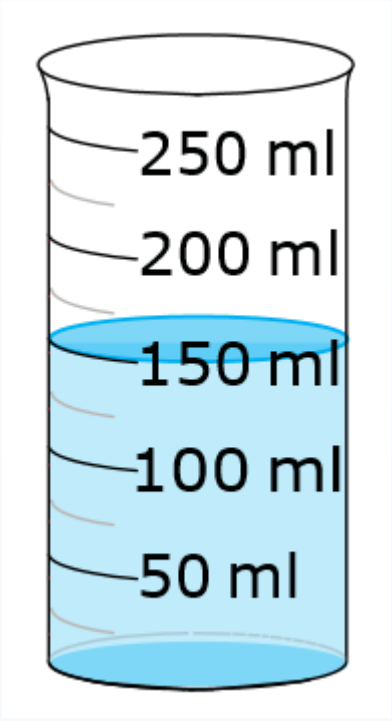
Now we have many tools which use standard units to measure capacity.

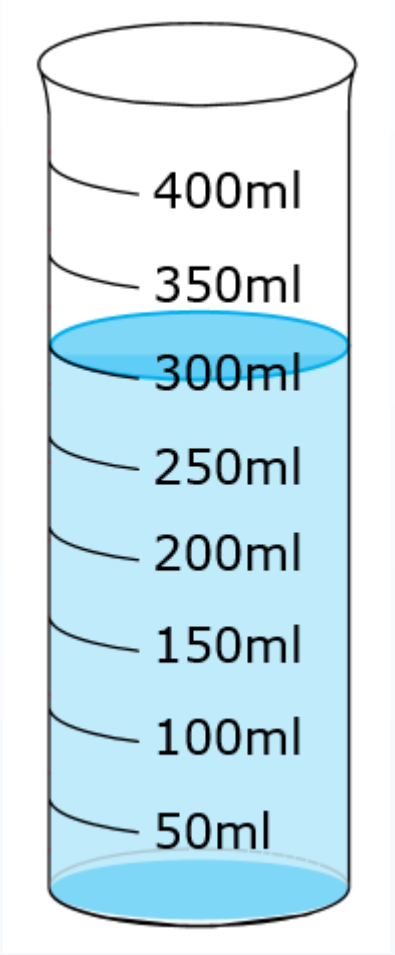


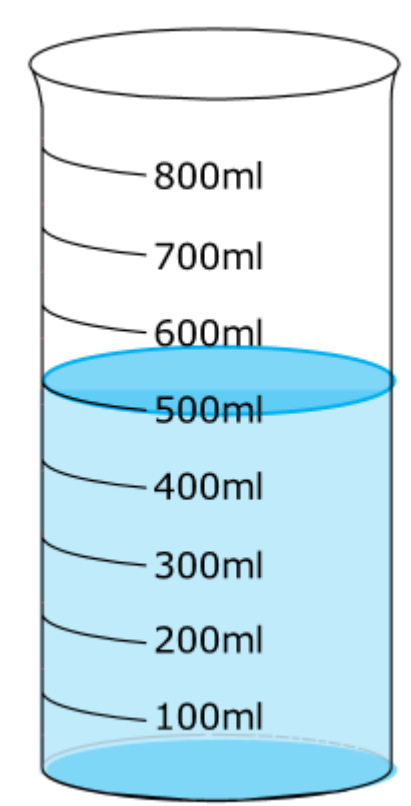
What is the scale on this measuring cylinder?




450 ml
400 ml
350 ml
300 ml
250 ml
200 ml
150 ml
100 ml
50 ml

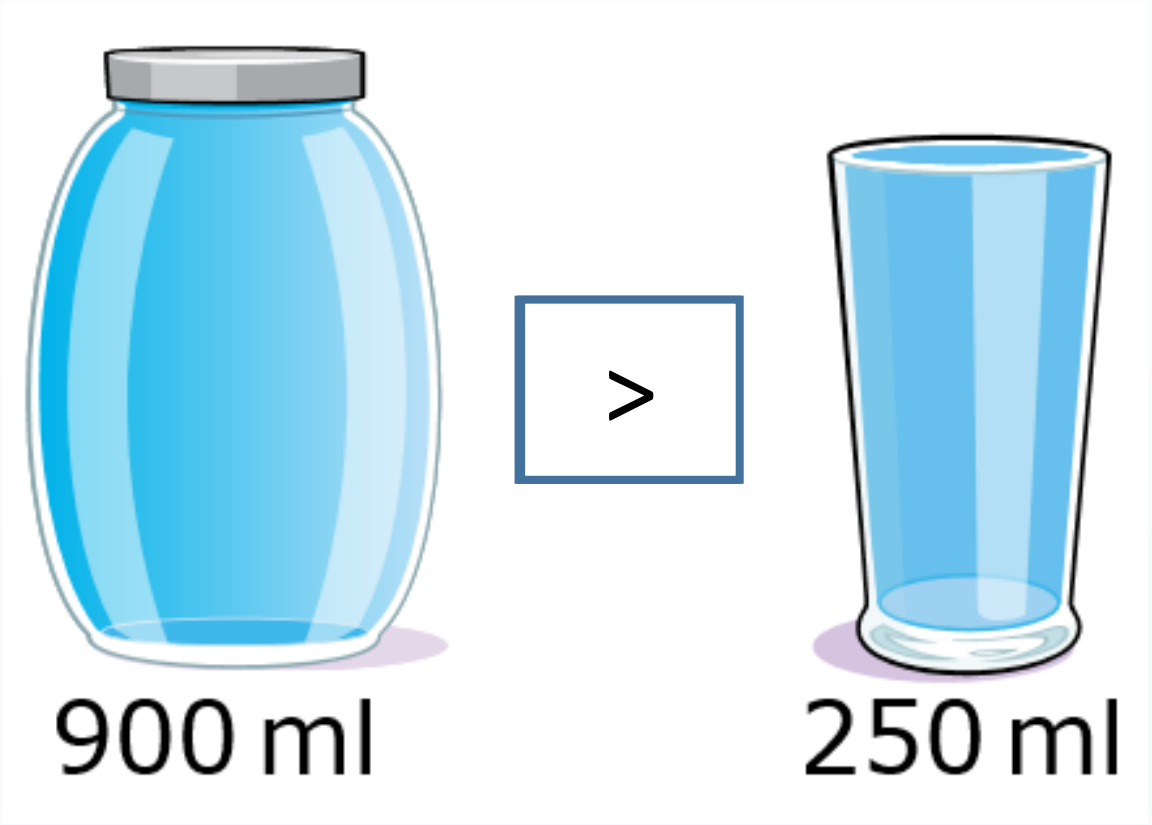

250 ml
200 ml
150 ml
100 ml
50 ml


400ml
350ml
300ml
250ml
200ml
150ml
100ml
50ml


800ml
700ml
600ml
500ml
400ml
300ml
200ml
100ml

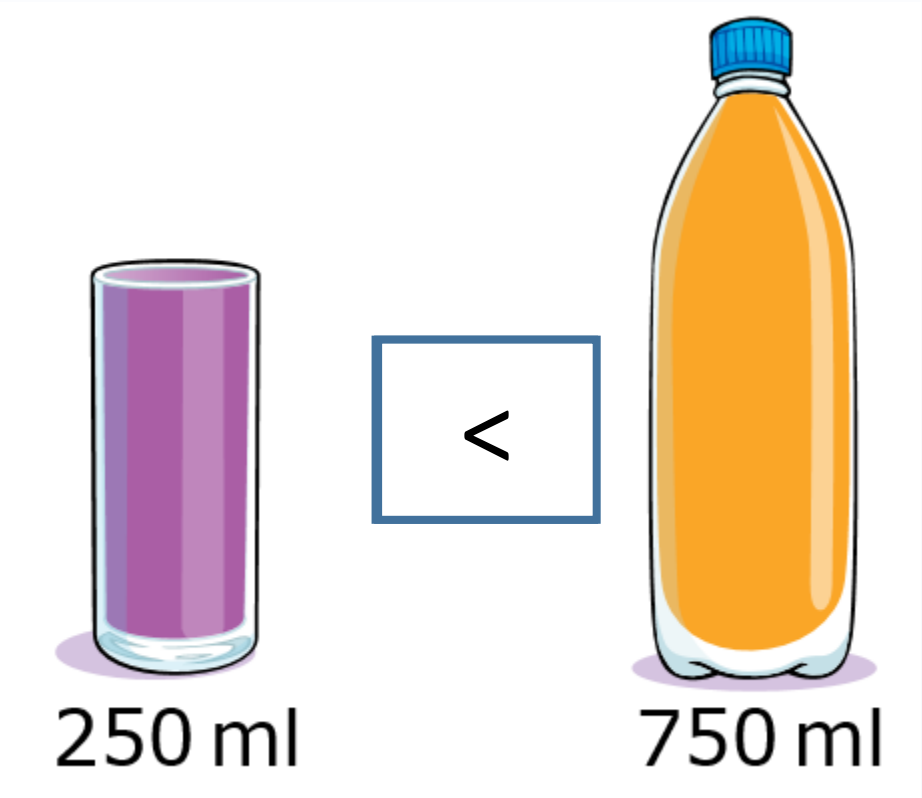
Comparing measure - Use the correct symbol:

< > =



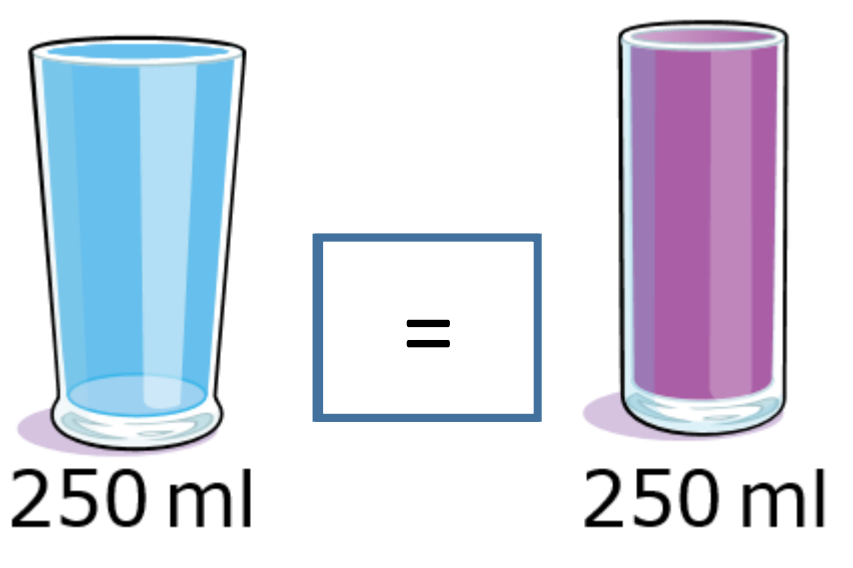
Comparing measure - Use the correct symbol:

< > =

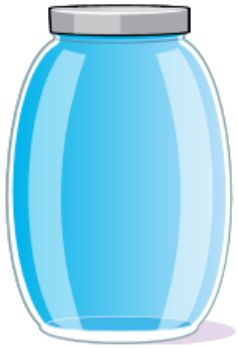


Comparing measure - Use the correct symbol:

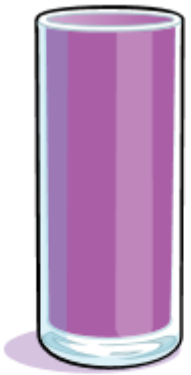
< > =



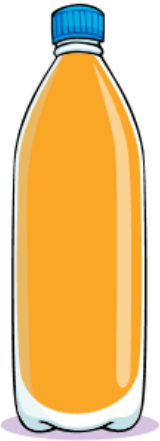
Order from smallest to largest



900 ml



250 ml



750 ml

Session 2 - Task

Fill the container to the following measures:

450ml
20ml
550ml
10ml
200ml
400ml
½ a litre

Extension: Ask a partner for a challenge.

What volume of liquid is inside each container? Which has the most? Which has the least?

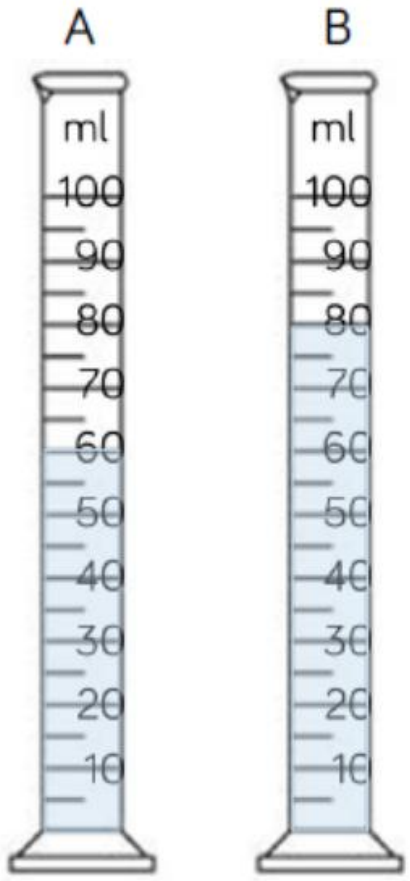
Use different containers with scales to measure different amount of liquid.

Fill different containers with water and compare their volumes.

Challenge

A  holds 5 ml of liquid.

How many  of liquid are there in each container?



Session 3

We have looked at different measurements.

Weight
Volume
Length

Can you think of any others?

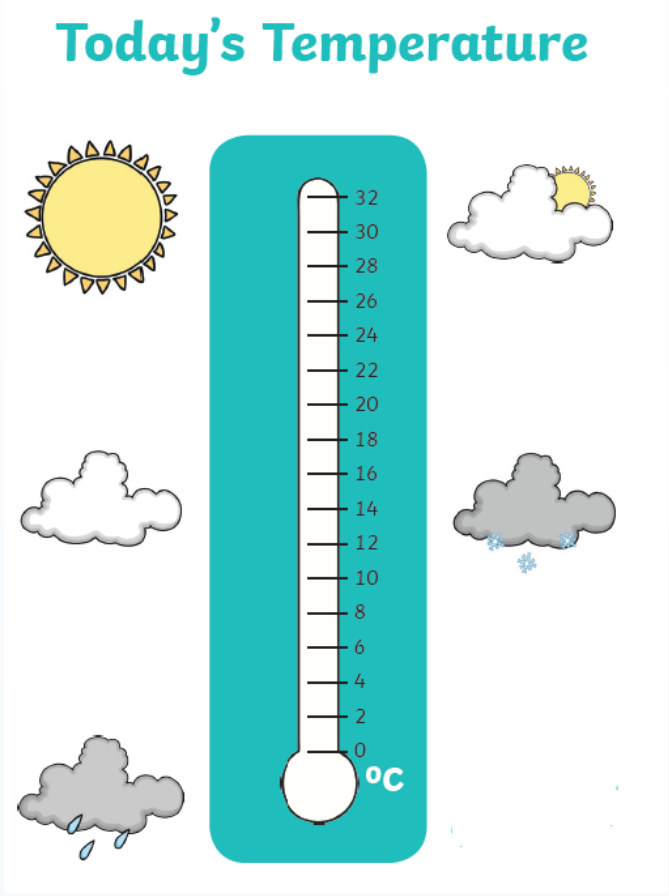
Temperature

We measure temperature using a **thermometer**.

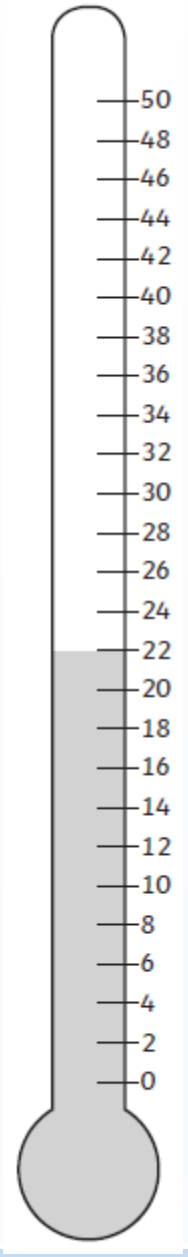
It is measure in **Degrees Celsius (°C)**.

The higher the temperature the hotter something is.

Temperature can go below 0°C.

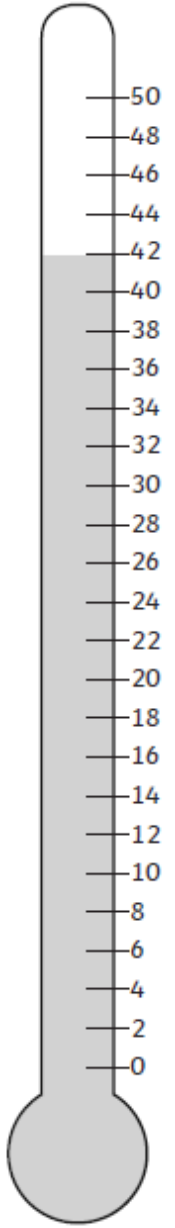


We use a thermometer to tell the temperature and it is similar to reading other scales.



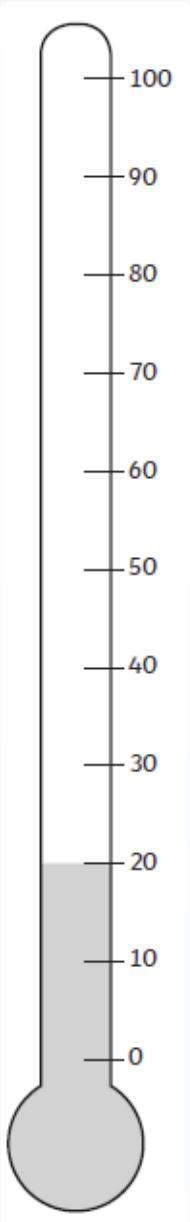
The temperature is 22°C.

What is the temperature?



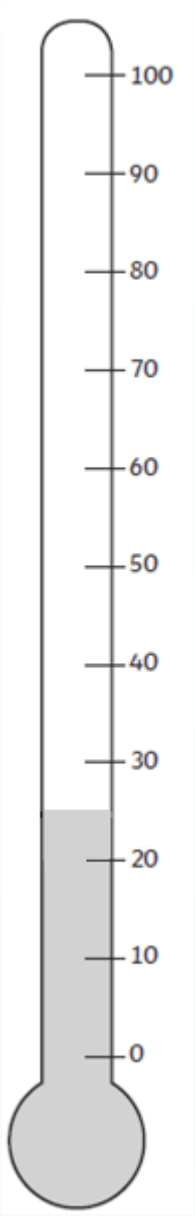
The temperature is 42°C.

What is the temperature?



The temperature is 20°C.

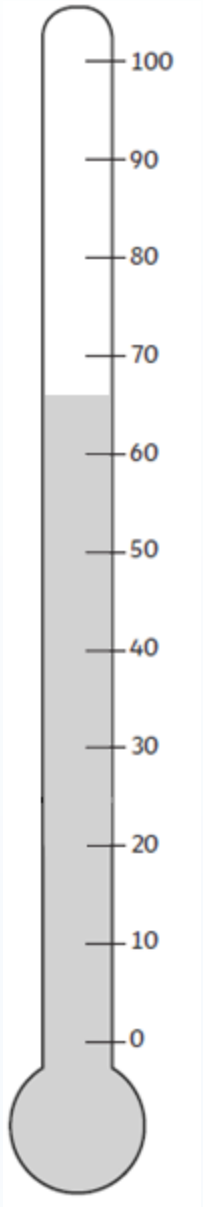
What is the temperature? Look at the scale (in jumps of 10)



The temperature is between 20°C and 30°C.

The temperature is 25°C.

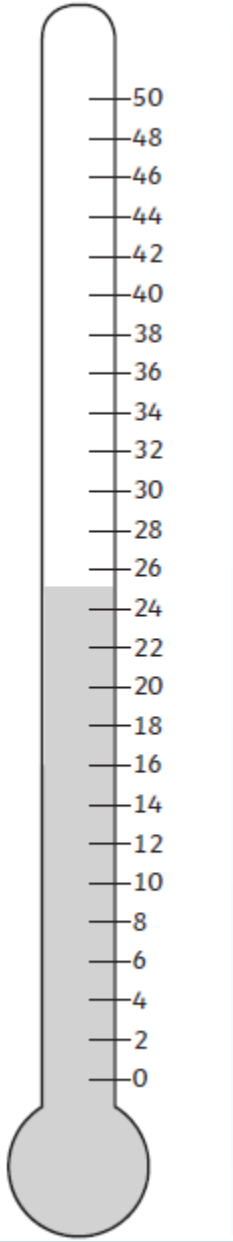
What is the temperature?
Look at the scale (in jumps of 10)



The temperature is between 60°C and 70°C but is closer to 70°C.

The temperature is 67°C.

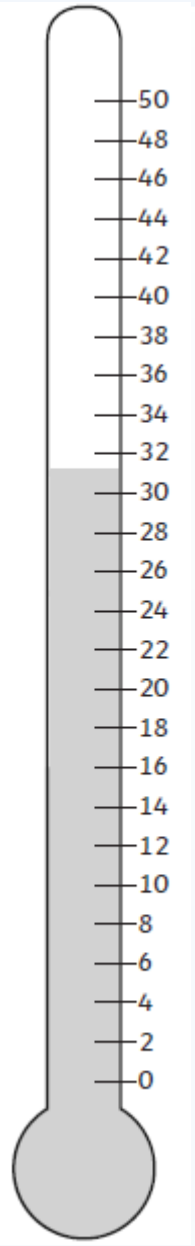
What is the temperature?
Look at the scale (in jumps of 2)



The temperature is between 24°C and 26°C.

The temperature is 25°C.

What is the temperature?
Look at the scale (in jumps of 2)

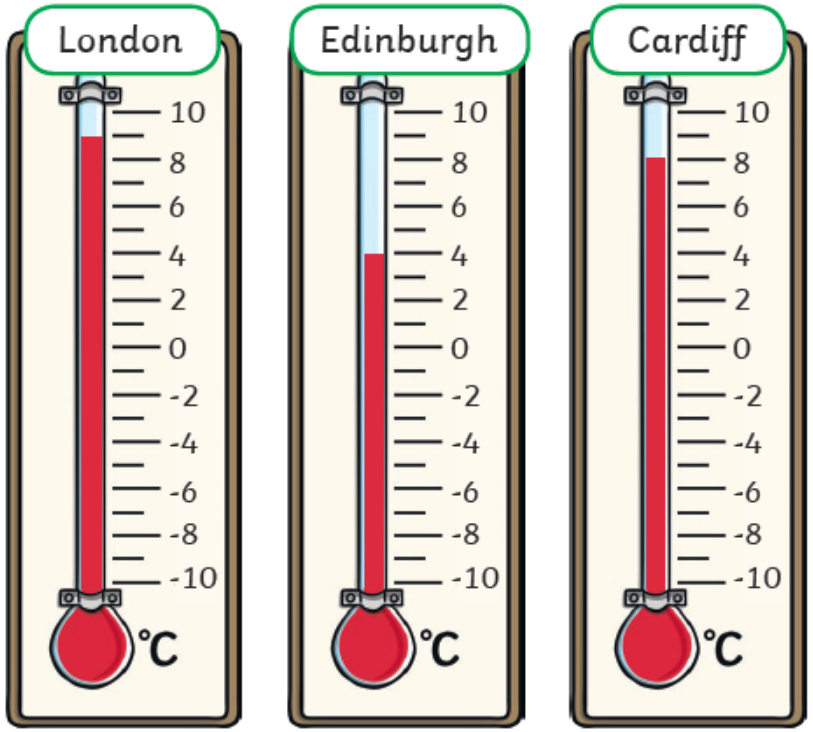


The temperature is between 30°C and 32°C.

The temperature is 31°C.

Temperature

These thermometers show the temperature at different weather stations around the UK.



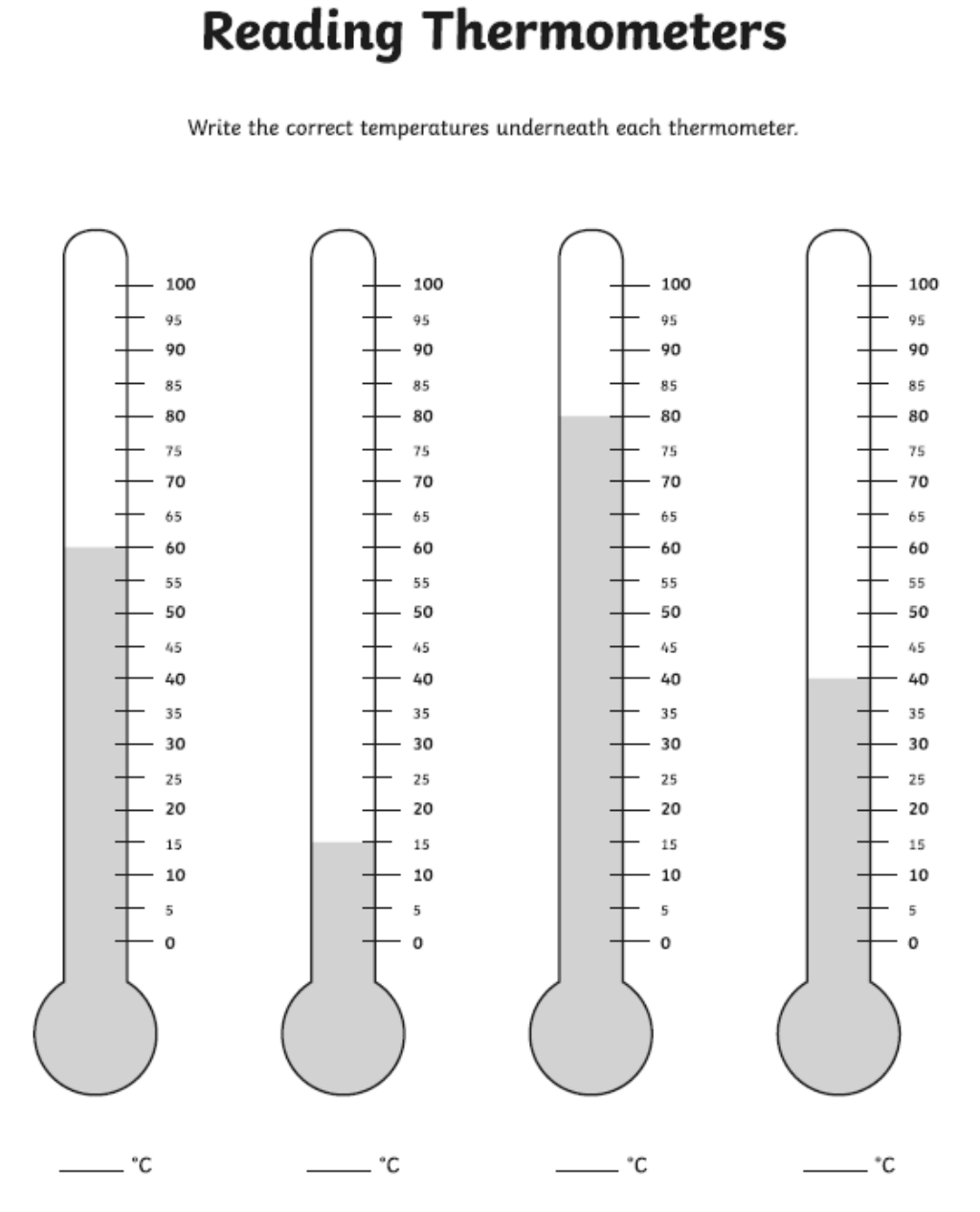
How many more degrees warmer is London than Cardiff?

Belfast is warmer than Edinburgh but cooler than London. What could the temperature be in Belfast?

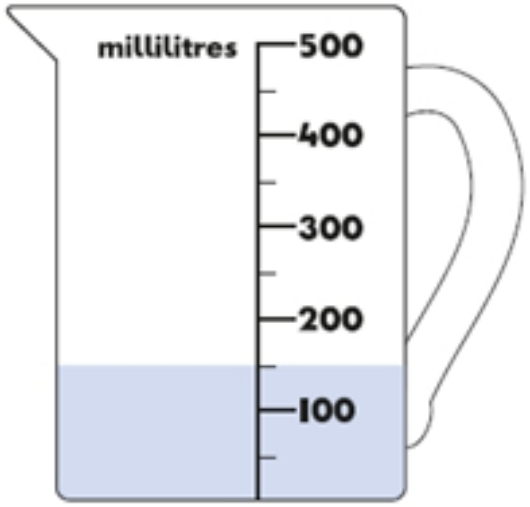
Which month do you think these temperatures might have been measured in? Why?

Task

Write the temperature under each thermometer.



Challenge



Kemi needs **450** millilitres of water.

How much **more** water does she needs to put in the jug?

millilitres

This jug has water in it.

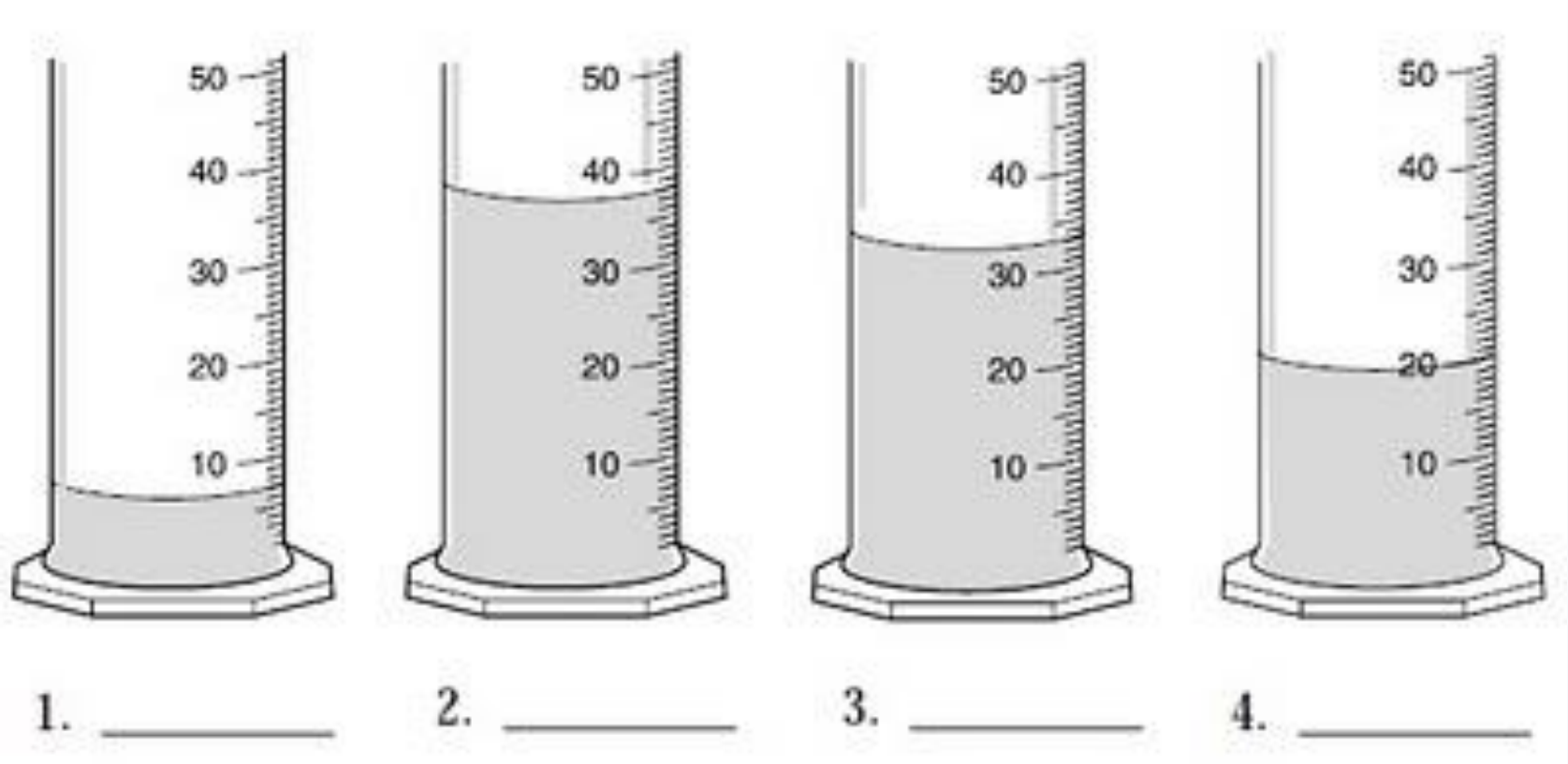
Ravi pours **150 millilitres** of water out of this jug.

How much water will be left in the jug?

mililitres

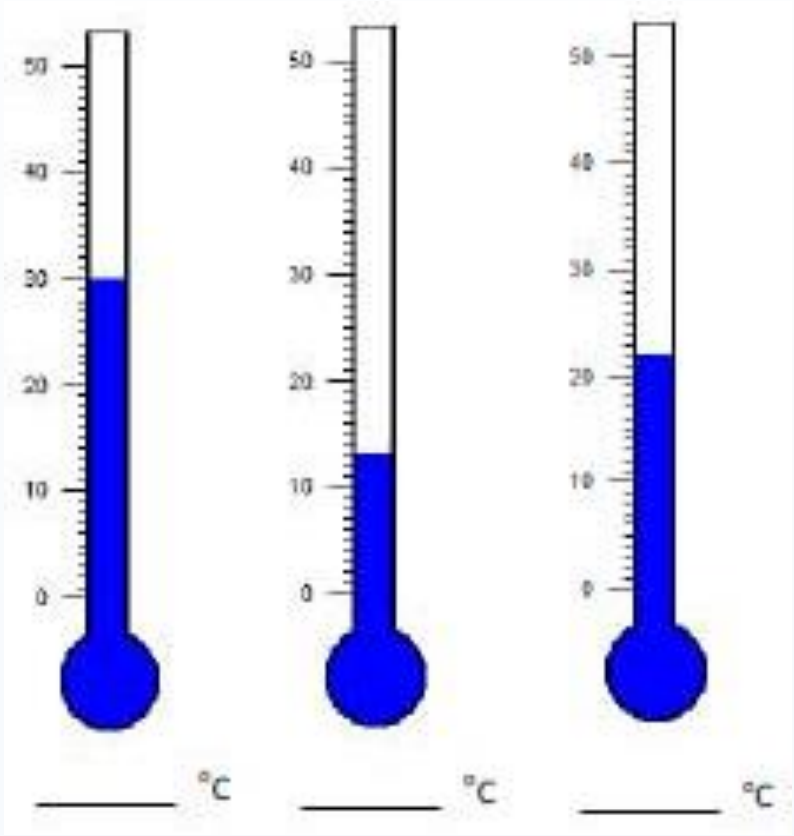
Session 4

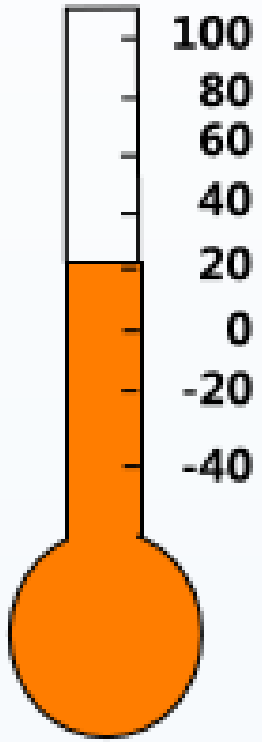
Estimate the volume in the measuring cylinders.

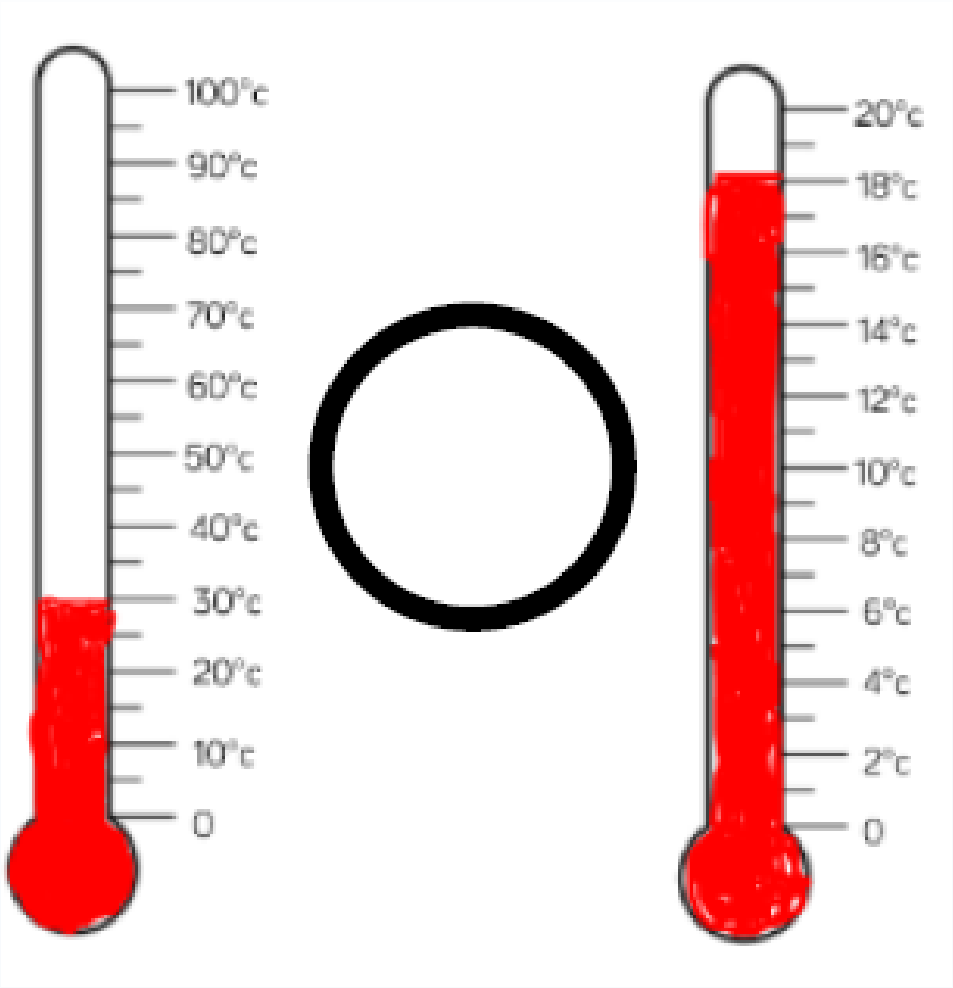


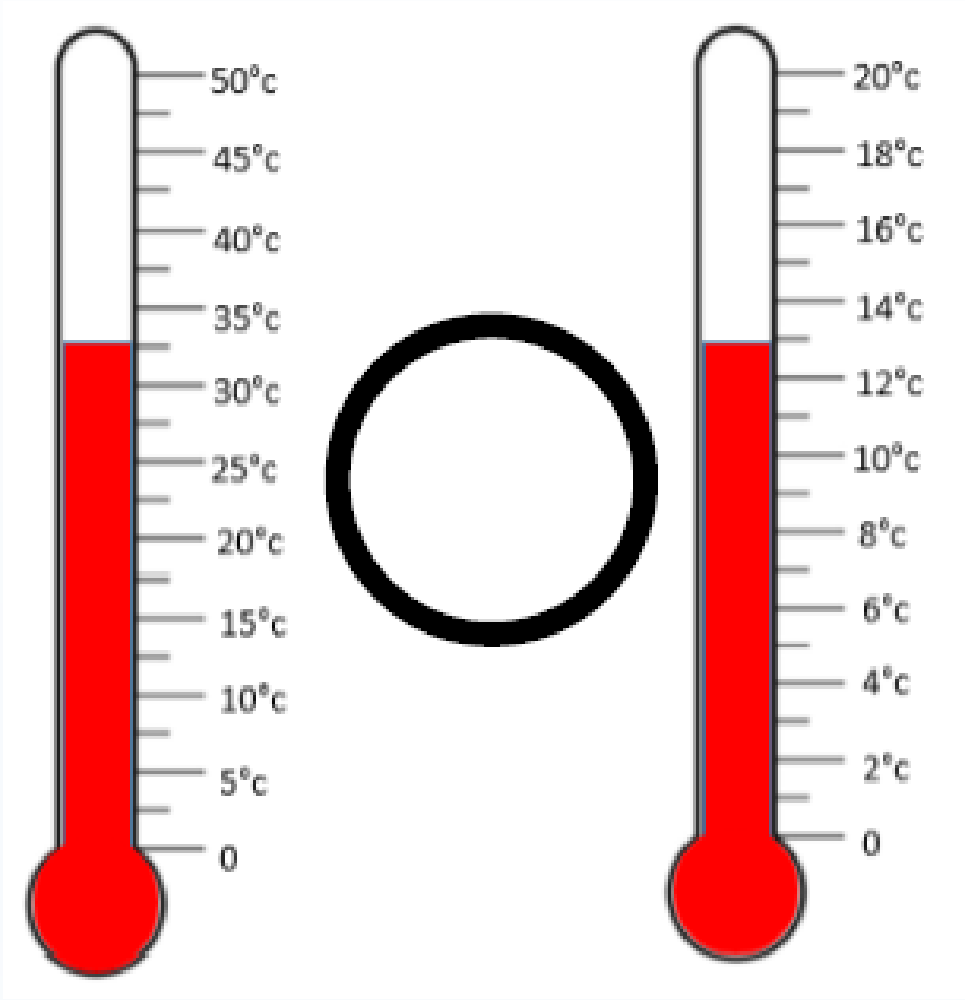
Session 4

Estimate the temperature of the thermometers.






100°c
90°c
80°c
70°c
60°c
50°c
40°c
30°c
20°c
10°c
0
20°c
18°c
16°c
14°c
12°c
10°c
8°c
6°c
4°c
2°c
0


50°c
45°c
40°c
35°c
30°c
25°c
20°c
15°c
10°c
5°c
0
20°c
18°c
16°c
14°c
12°c
10°c
8°c
6°c
4°c
2°c
0

Mollie took the temperature at 12 p.m. and again at 5 p.m.

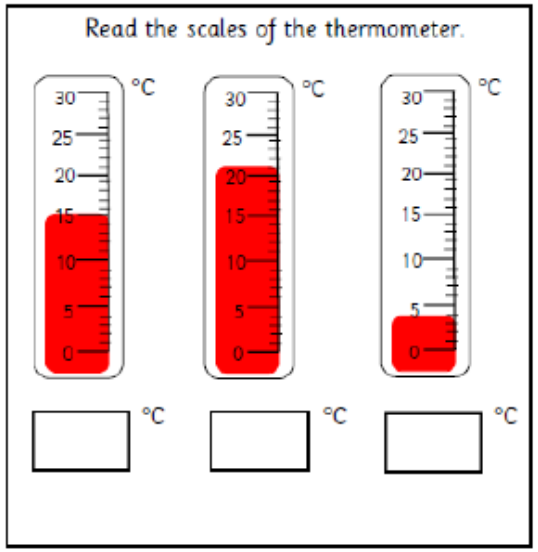
There was a difference of 7°C

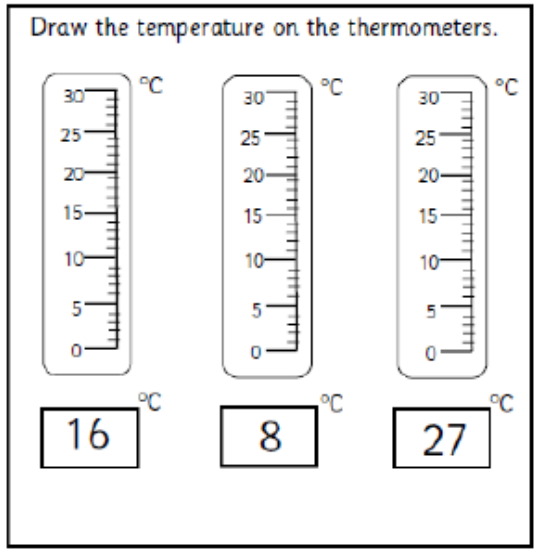
What could the temperatures be?

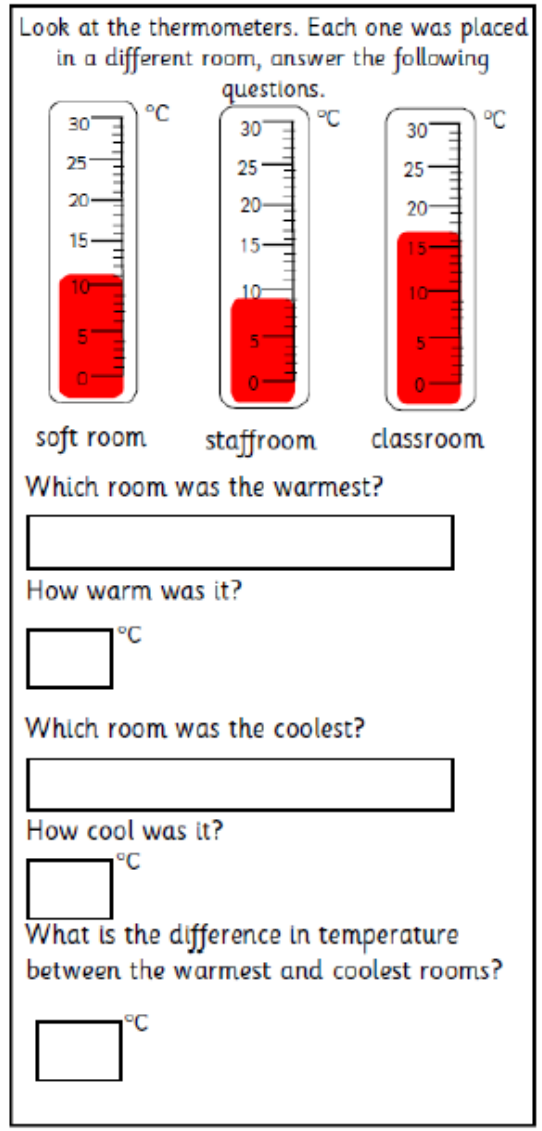
Task

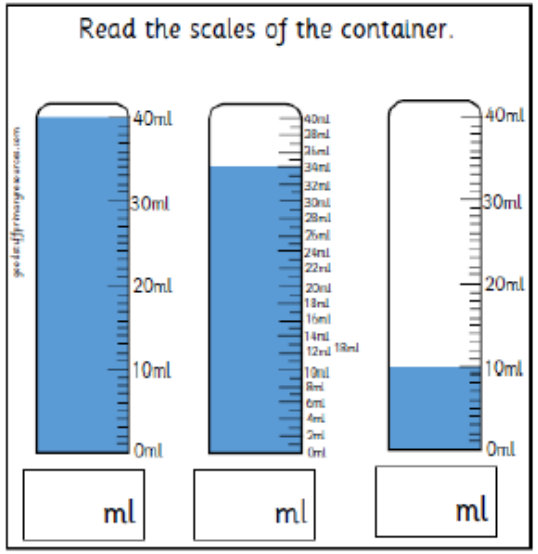
Complete the questions on your chosen sheet:

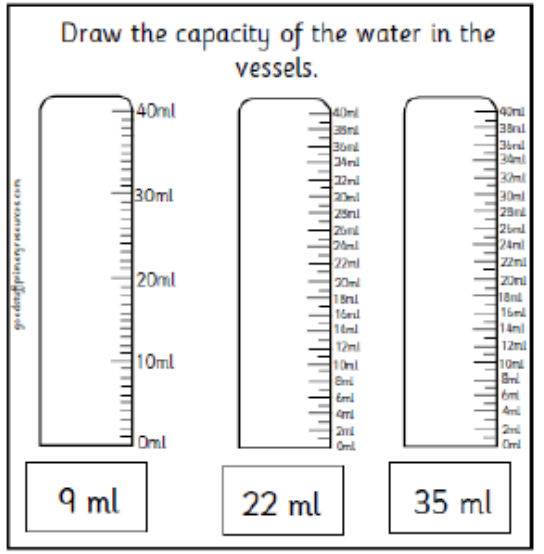
Task A - If you feel confident
Task B - If you would like a challenge



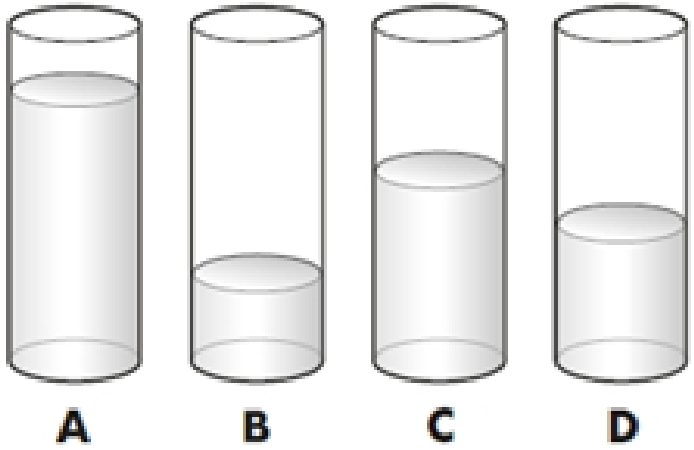








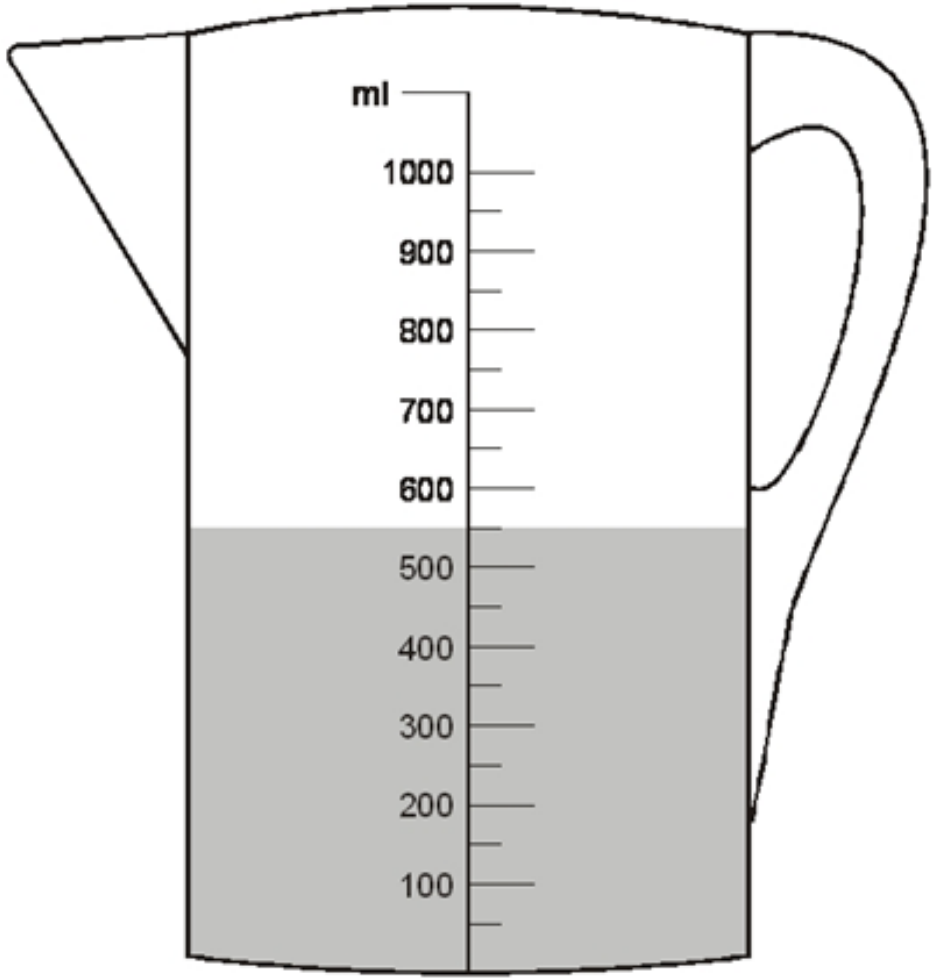
Challenge



Sort the glasses from **least full** to **most full**.

least full			**most full**

How many millilitres (ml) of water are in the jug?

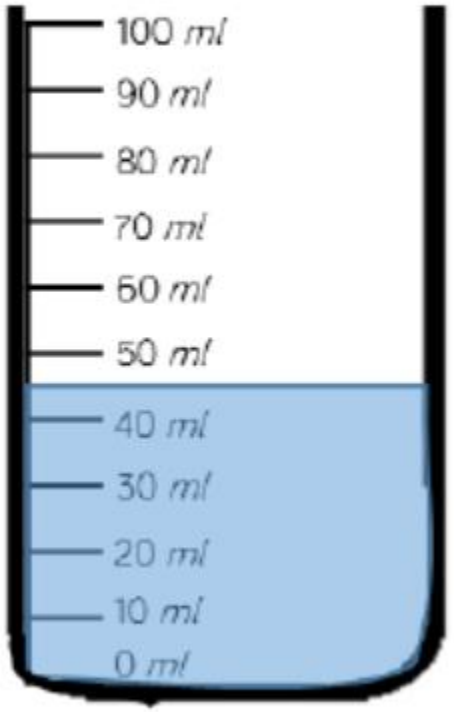


millilitres

Session 5

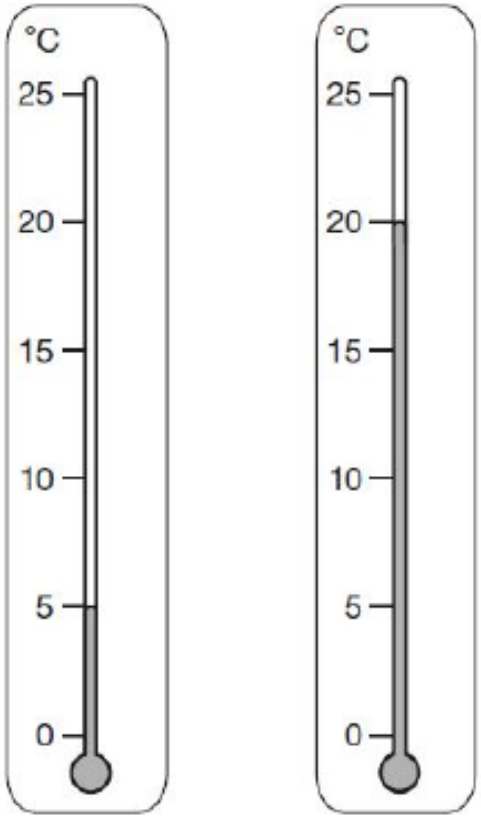
Complete the following questions.

Estimate the amount of water in the container.



Explain why you have given your answer.

Look at the thermometers.



playground **classroom**

The temperature on the playground is lower than the temperature in the classroom.

How much lower?

°C

Mo puts 4 litres of water in bucket A.
He then pours 3 litres from bucket A into bucket B.

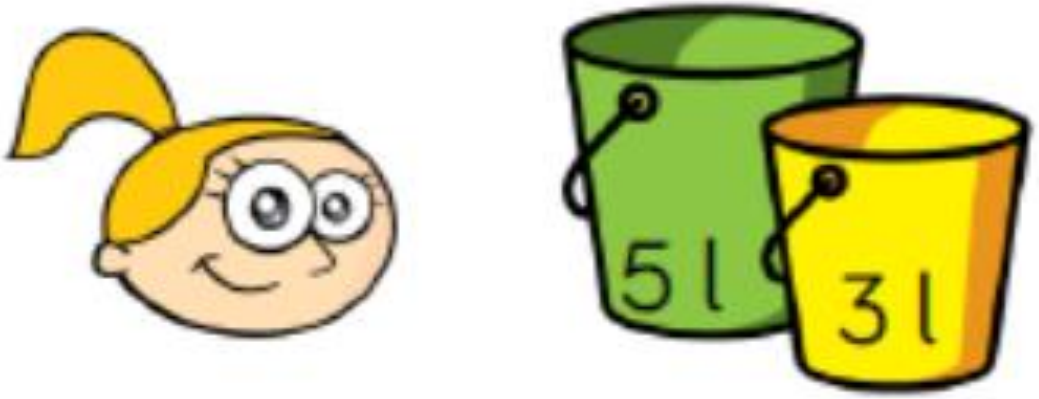
A B

Which sentence is correct?

- There is more in bucket A.
- There is less in bucket A.
- There are equal amounts in each bucket.

Explain why.

Eva wants to measure 2 litres of water into a tub. She only has a 5 litre and a 3 litre container.



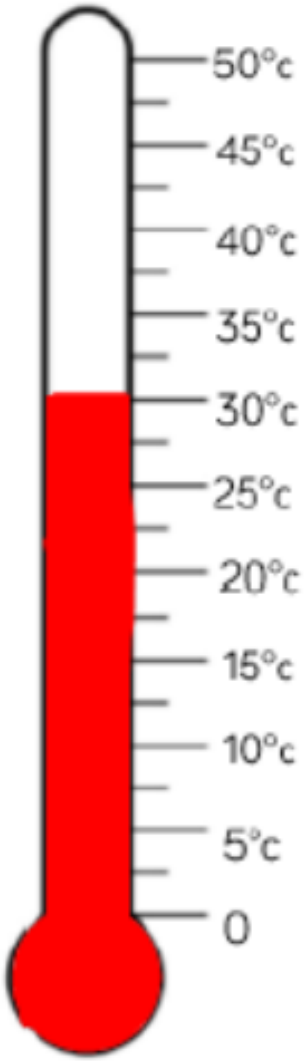
How can she use both containers to measure 2 litres?

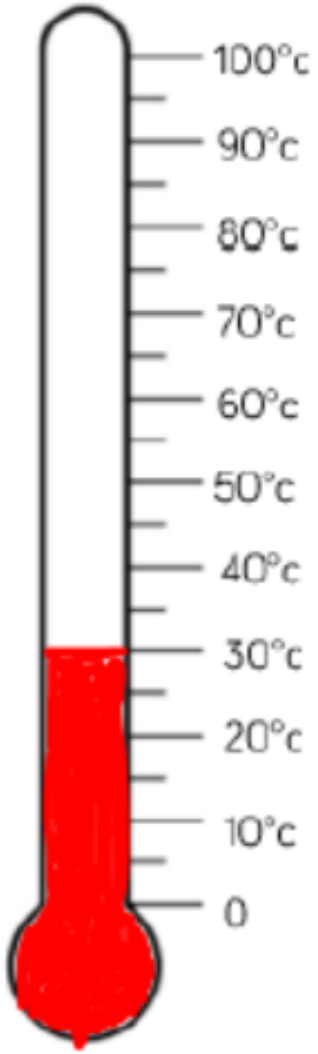
Mollie took the temperature at 12 p.m. and again at 5 p.m.

There was a difference of 7°C

What could the temperatures be?

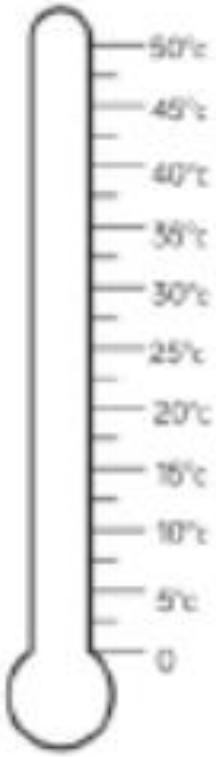
What is the same and what is different about the thermometers/temperatures?



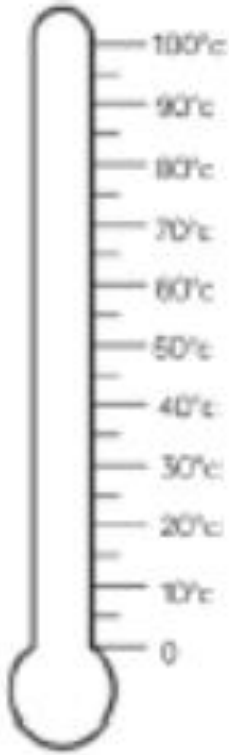


Complete the thermometers to show the temperatures.

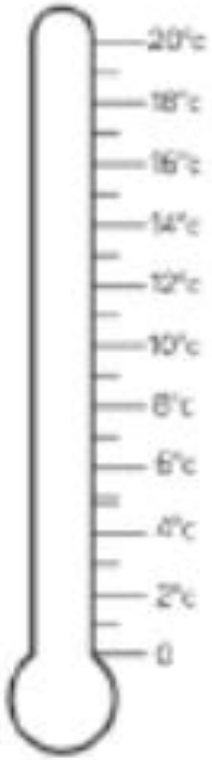
16 °C



35 °C



70 °C



9 °C