



Measurement 1

Reasoning

Name: _____

Class: _____

Date: _____

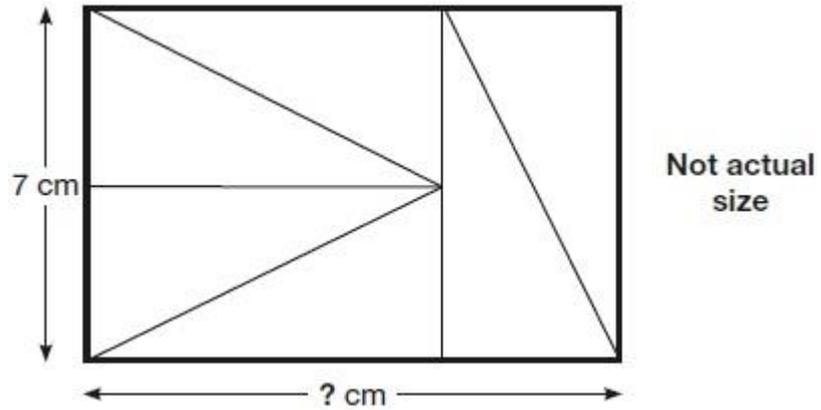
Time:

Marks: **60 marks**

Comments:

Q1.

Six identical right-angled triangles are arranged to make a rectangle.



Calculate the **length** of the rectangle.

1 mark

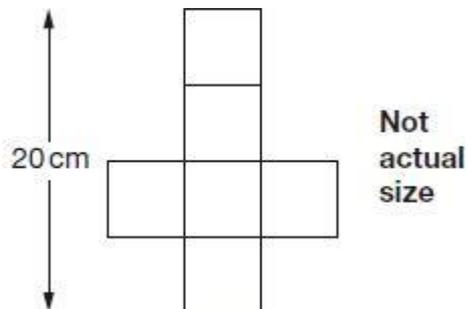
Q2.

How many days are there in September, October and November altogether?

1 mark

Q3.

This is the net of a cube.



What is the **volume** of the cube?

1 mark

Q4.

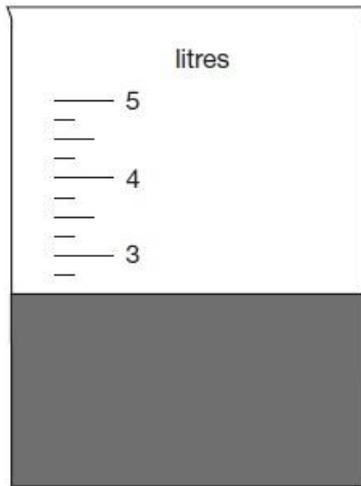
On the line below, mark the point that is 6.7 centimetres from A.



1 mark

Q5.

Jack pours some dark paint into a container.



In litres, how much paint is in the container?

1 mark

Q6.

Write the missing numbers.

60 months = years

72 hours = days

84 days = weeks

2 marks

Q7.

Jack finished a sponsored run in 53 minutes 25 seconds.

Ally finished 3 minutes 50 seconds **after** Jack.

How long did Ally take?

min	sec
-----	-----

1 mark

Layla finished the run 8 minutes 45 seconds **before** Jack.

How long did Layla take?

min	sec
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1 mark

Q8.

Stefan's watch shows five minutes past nine.

The watch is twelve minutes fast



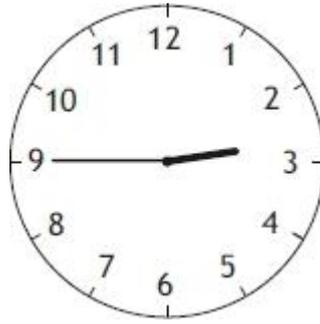
What is the correct time?

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1 mark

Q9.

A clock shows this time twice a day.



Tick the two digital clocks that show this time.

03:45

02:45

09:45

21:45

14:45

1 mark

Q10.

What is 444 minutes in hours and minutes?

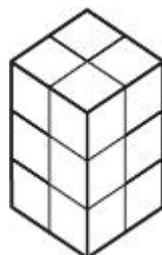
hours

minutes

1 mark

Q11.

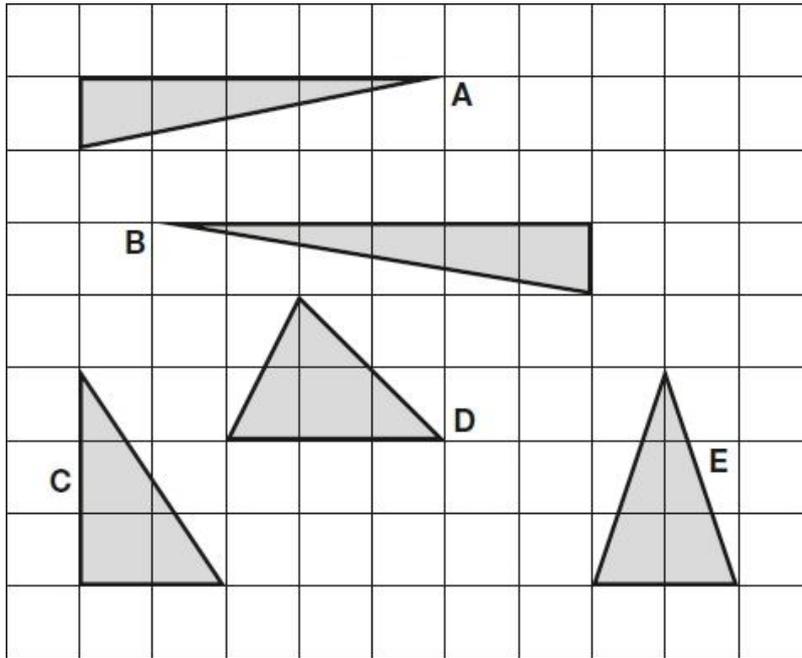
Emma makes a cuboid using 12 cubes.



Write the letter of the cuboid that has a **different** volume from Emma's cuboid.

Q13.

Here are five triangles on a square grid.



Four of the triangles have the same area.

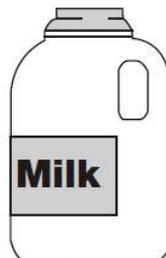
Which triangle has a **different** area?

_____ 1 mark

Q14.

A bottle contains 568 millilitres of milk.

Jack pours out **half a litre**.



How much milk is left?

1 mark

Q15.



The International Space Station orbits the Earth at a height of 250 miles.

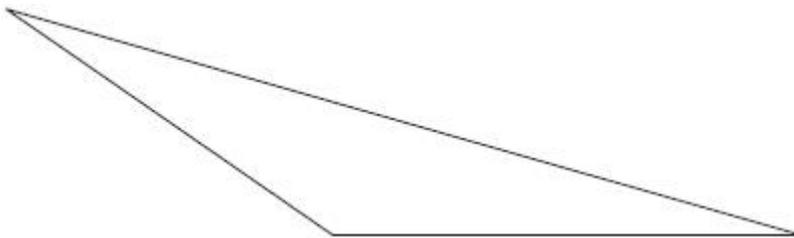
What is the height of the International Space Station in **kilometres**?

Use 8 kilometres equals 5 miles.

1 mark

Q16.

Here is a triangle.



Measure the shortest side accurately, in centimetres.

1 mark

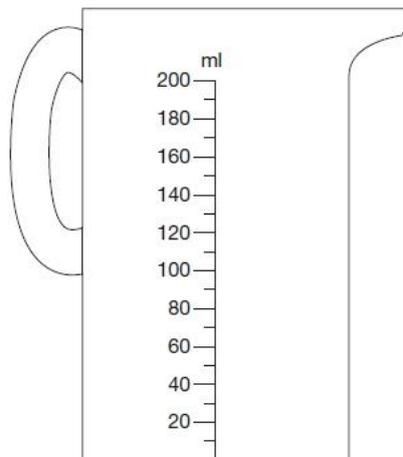
Measure the largest angle.

1 mark

Q17.

Chen pours 165 millilitres of milk into a measuring jug.

Draw an arrow on the jug to show the level of the milk.

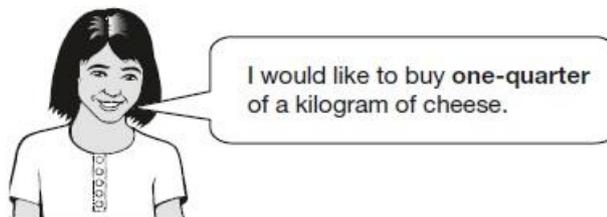


1 mark

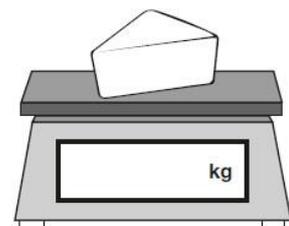
Q18.

Amina is shopping.

She says,



Write one-quarter on the scales as a decimal.



1 mark

The cheese costs £1.35

Amina pays with a £2 coin.

How much change should Amina get?

1 mark

Q19.

One gram of gold costs £32.94

What is the cost of **half a kilogram** of gold?

Show your method

£

2 marks

Q20.

The area of a rugby pitch is 6,108 square metres.

A football pitch measures 112 metres long and 82 metres wide.

How much larger is the area of the football pitch than the area of the rugby pitch?

Show your method

square metres

3 marks

Q21.

Jacob cuts **4** metres of ribbon into **three** pieces.

The length of the first piece is **1.28** metres.

The length of the second piece is **1.65** metres.

Work out the length of the third piece.

Show your method

metres

2 marks

Q22.

The length of a day on Earth is 24 hours.

The length of a day on Mercury is $58\frac{2}{3}$ times the length of a day on Earth.

What is the length of a day on Mercury, in **hours**?

Show your method

hours

2 marks

Q23.

Miss Mills is making jam to sell at the school fair.

Strawberries cost £7.50 per kg.

Sugar costs 79p per kg.

10 glass jars cost £6.90

She uses 12 kg of strawberries and 10 kg of sugar to make 20 jars full of jam.

Calculate the total cost to make 20 jars full of jam.

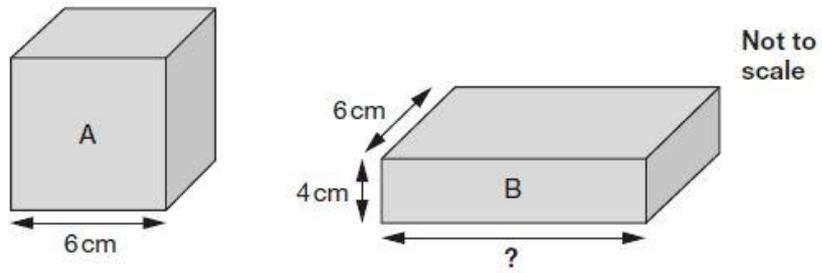
Show your method

£

3 marks

Q25.

Cube A and cuboid B have the same volume.



Calculate the missing length on cuboid B.

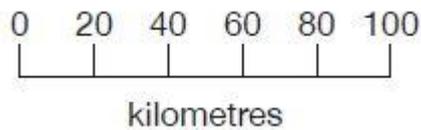
Show your method

cm

2 marks

Q26.

On a map, 1 cm represents 20 km.



The distance between two cities is **250 km**.

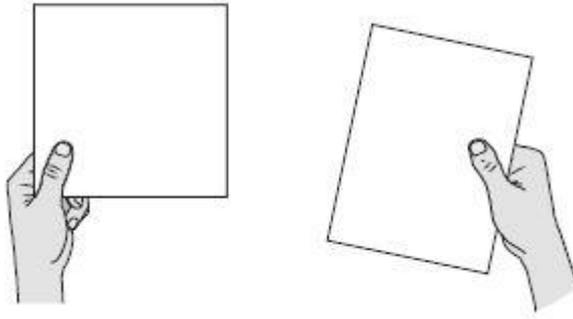
On the map, what is the distance between the two cities?

Show your method

cm

2 marks

Q27.



A square tile measures 20 cm by 20 cm.

A rectangular tile is 3 cm **longer** and 2 cm **narrower** than the square tile.

What is the **difference in area** between the two tiles?

Show your method

cm²

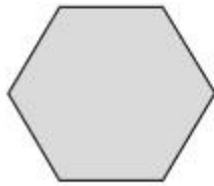
A large grid for showing the method to find the difference in area between the two tiles. The grid is 20 units wide and 20 units high. A rounded rectangle on the left side of the grid contains the text "Show your method". A small rectangular box at the bottom right of the grid contains the text "cm²".

3 marks

Q32.

These two shapes have the **same** perimeter.

regular hexagon



square

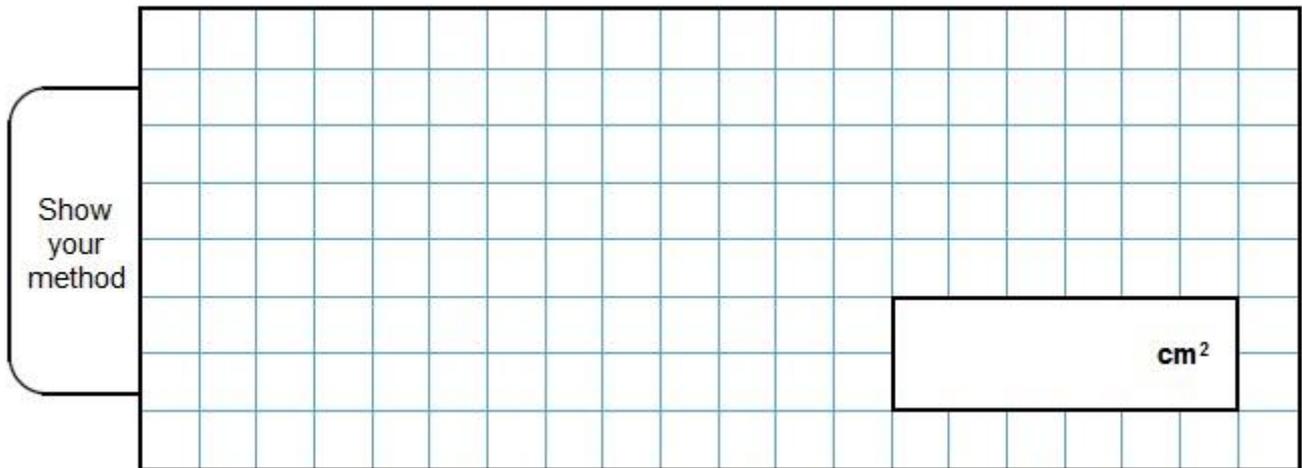


Not actual size

The length of each side of the **hexagon** is **8** centimetres.

Calculate the **area** of the **square**.

Show your method



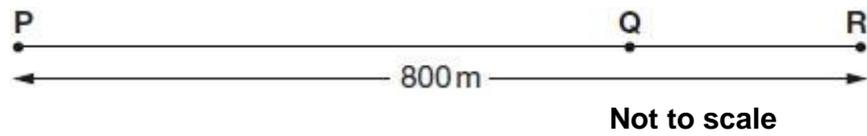
2 marks

Show your method

litres

2 marks

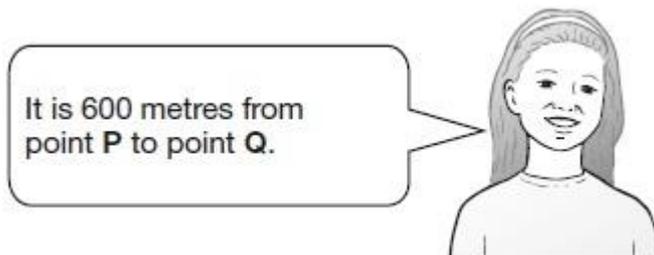
Q35.



The distance from point **P** to point **R** is 800 metres.

The distance from point **P** to point **Q** is **4 times** the distance from point **Q** to point **R**.

Olivia says,



Explain why Olivia is **not** correct.

1 mark