



Reasoning

Measurement 3

Name: _____

Class: _____

Date: _____

Time:

Marks: **57 marks**

Comments:

Q1.

Write these times in order, starting with the shortest.

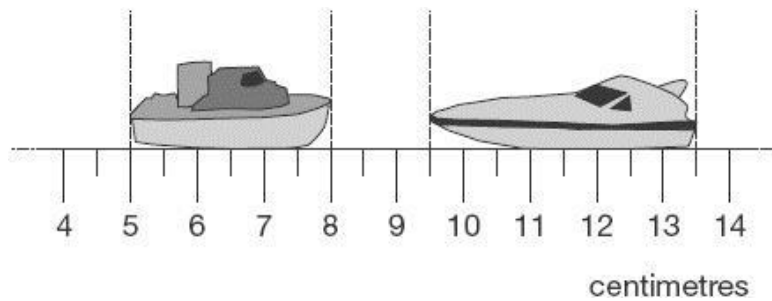
24 days 10 weeks

1 month 48 hours

smallest 1 mark

Q2.

Here are two model boats on a centimetre scale.



Actual size

How far apart are the boats?

cm

1 mark

What is the **difference** in the lengths of the two boats?

cm

1 mark

Q3.

Circle the time that is 30 minutes **before** midnight.

12:30 am

12:30 pm

11:30 am

11:30 pm

3 am

1 mark

Q4.

Joe goes skating every Saturday.

He went skating on Saturday January 1st.

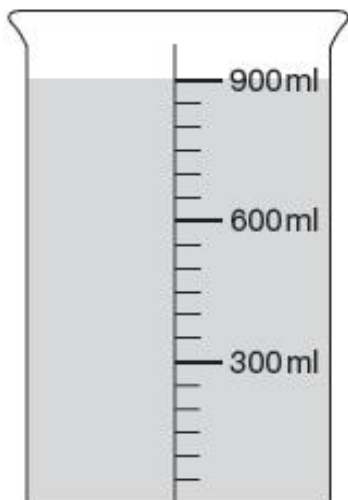


Altogether, how many times did Joe go skating in January?

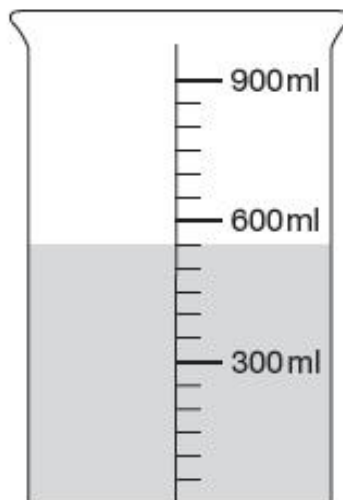
1 mark

Q5.

This container has 900 millilitres of water in it.



Lara pours out some water so that it looks like this.



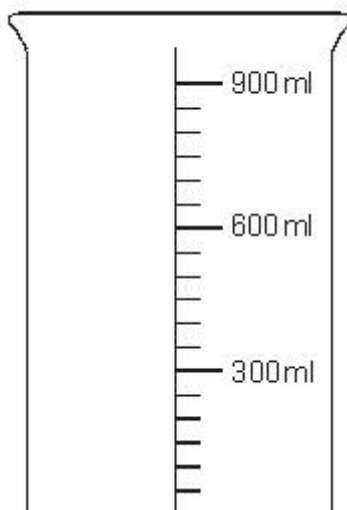
How much water has Lara poured out?

| |
|----|
| ml |
|----|

1 mark

Then she pours out another 150 ml of water.

Draw an arrow (→) to show the new level of the water.



1 mark

Q6.

Liam has two different sizes of rectangle.



He makes this pattern with them.



Not actual size

Calculate the lengths of **A** and **B**.

A = cm

1 mark

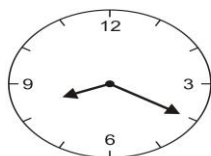
B = cm

1 mark

Q7.

Here are two clock faces.

Join each clock face to the correct digital time.

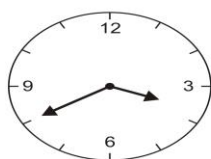


9:20

3:40

4:40

8:40



8:20

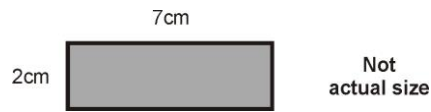
4:20

2 marks

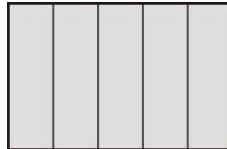
Q8.

Lara has some identical rectangles.

They are 7 centimetres long and 2 centimetres wide.



She uses **five** of her rectangles to make the large rectangle below.



What is the **perimeter** of the large rectangle?

cm

1 mark

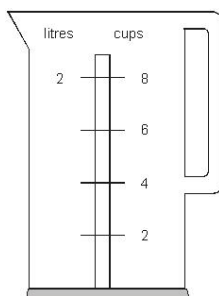
What is the **area** of the large rectangle?

cm

1 mark

Q9.

Nisha's kettle holds 2 litres of water.



How many millilitres are equal to 1 cup?

ml

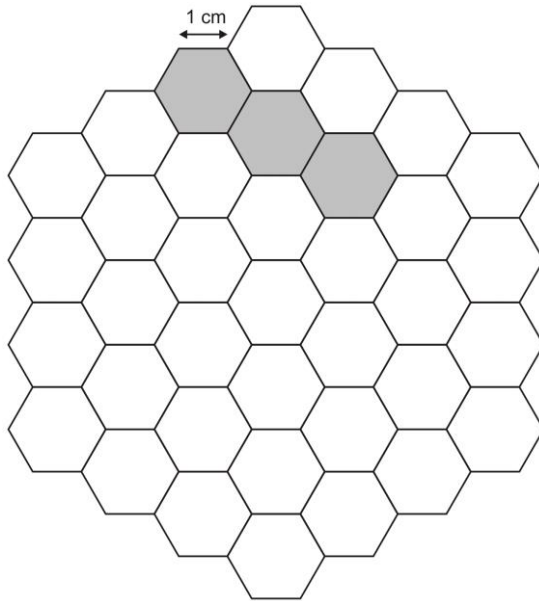
1 mark

Q10.

Here is a grid of regular hexagons.

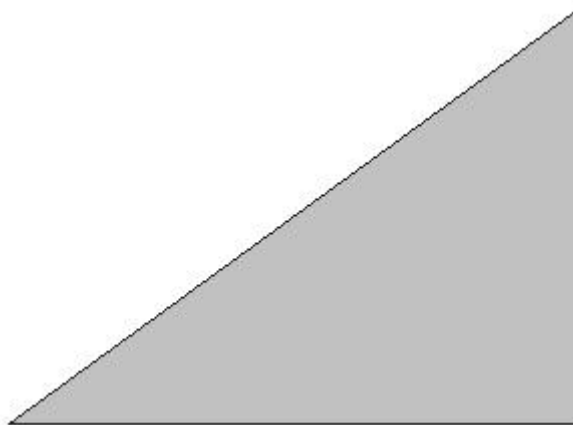
The shaded shape has an area of 3 hexagons and a perimeter of 14 cm.

Draw another shape on the grid which has an **area** of 4 hexagons and a **perimeter** of 14 cm.



1 mark

Q11.



Measure accurately the length of the **shortest** side of this triangle. Write your answer in centimetres.

| |
|----|
| cm |
|----|

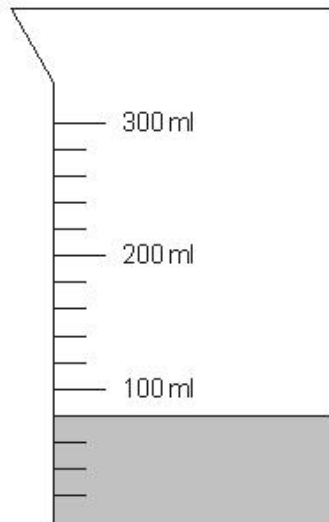
1 mark

Q12.

Hassan has a jug with some water in it.

He adds another 140 millilitres of water.

Draw a line to show the new level of water.

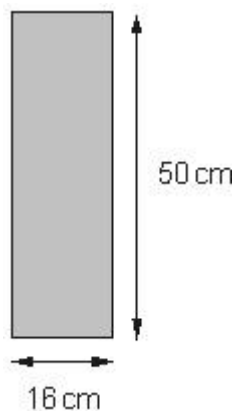


1 mark

Q13.

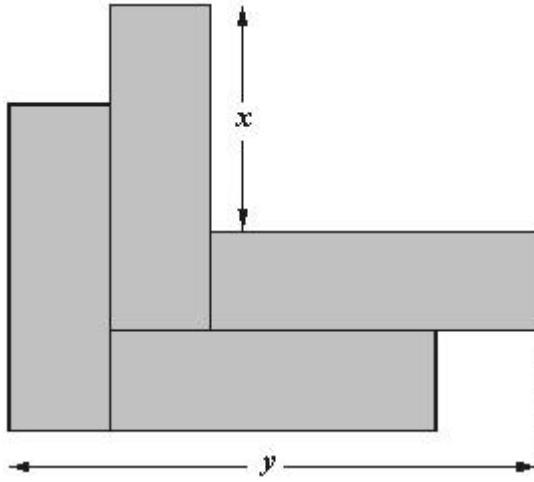
Kate has some rectangles.

They each measure 16 centimetres by 50 centimetres.



Not actual size

She makes this design with four of the rectangles.



Work out the lengths x and y .

$x =$ **cm**

1 mark

$y =$ **cm**

1 mark

Q14.

Jamie, Kate and Hassan run a 50 m race.



Kate's time is 13 seconds.

Jamie finishes 5 seconds before Kate.

Hassan finishes 3 seconds after Jamie.

What is **Hassan's time** in seconds?

seconds

1 mark

Q15.

Kate has a piece of ribbon **one metre** long.

She cuts off 30 centimetres.



How many centimetres of ribbon are left?

| |
|-----------|
| cm |
|-----------|

1 mark

Q16.



A film starts at 6:45pm.

It lasts 2 hours and 35 minutes.

What time will the film finish?

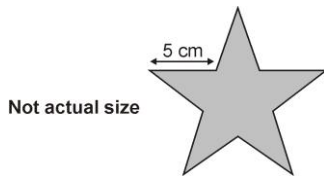
| |
|-----------|
| pm |
|-----------|

1 mark

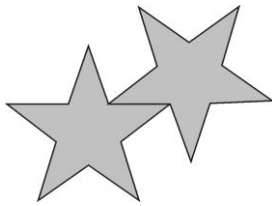
Q17.

Millie has some star-shaped tiles.

Each edge of a tile is 5 centimetres long.



She puts two tiles together to make this shape.



Work out the perimeter of Millie's shape.

| |
|-----------|
| cm |
|-----------|

1 mark

Q18.

An isosceles triangle has a perimeter of 12 cm.

One of its sides is 5 cm.

What could the length of each of the other two sides be?

Two different answers are possible.

Give **both** answers.

| |
|-----------|
| cm |
|-----------|

and

| |
|-----------|
| cm |
|-----------|

| |
|-----------|
| cm |
|-----------|

and

| |
|-----------|
| cm |
|-----------|

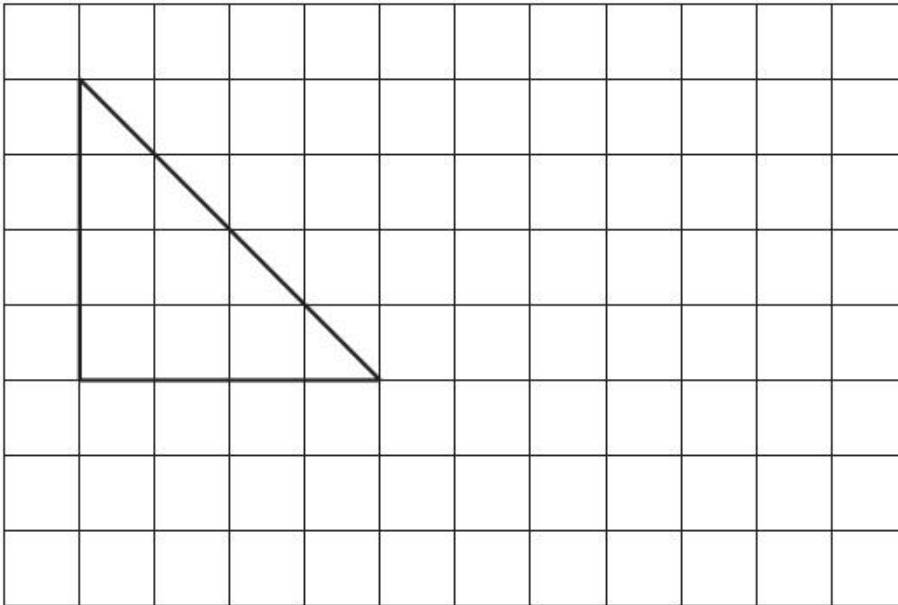
2 marks

Q19.

Here is a triangle drawn on a square grid.

Draw a **rectangle** on the grid with the same area as the triangle.

Use a ruler.



1 mark

Q20.

Here are four masses.

2
kilograms

1
tonne

800
grams

$\frac{1}{2}$
kilogram

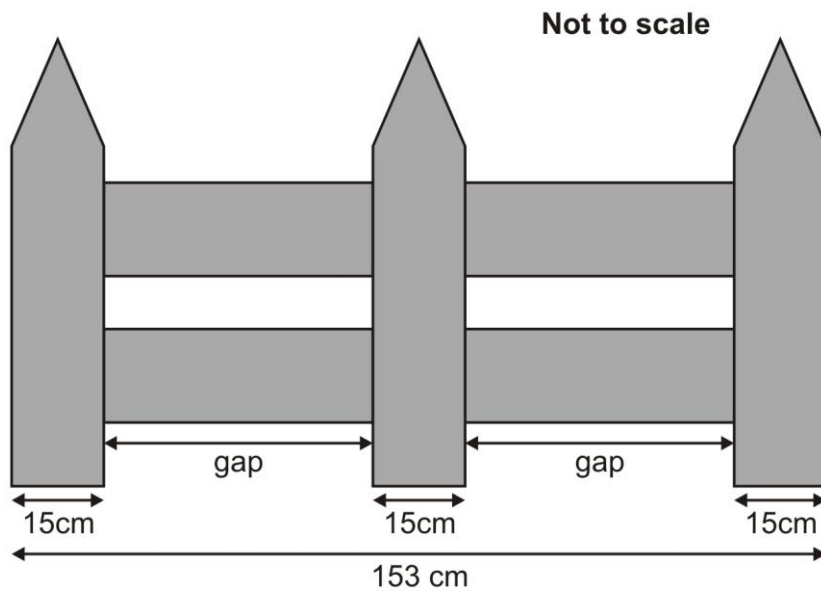
Write the masses in order, starting with the lightest.

lightest

1 mark

Q21.

This fence has three posts, equally spaced.



Each post is **15 centimetres** wide.

The length of the fence is **153 centimetres**.

Calculate the length of **one gap** between two posts.

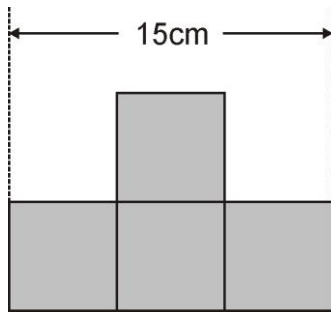
Show your method

cm

2 marks

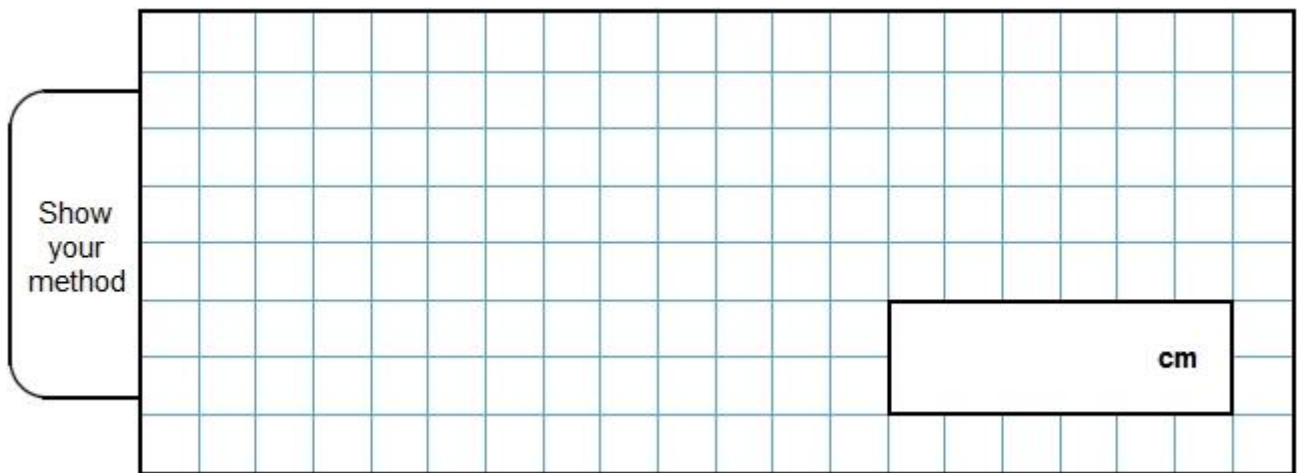
Q22.

This shape is made from 4 shaded squares.



**Not
actual size**

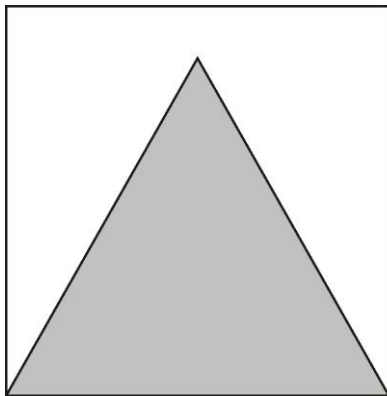
Calculate the perimeter of the shape.



2 marks

Q23.

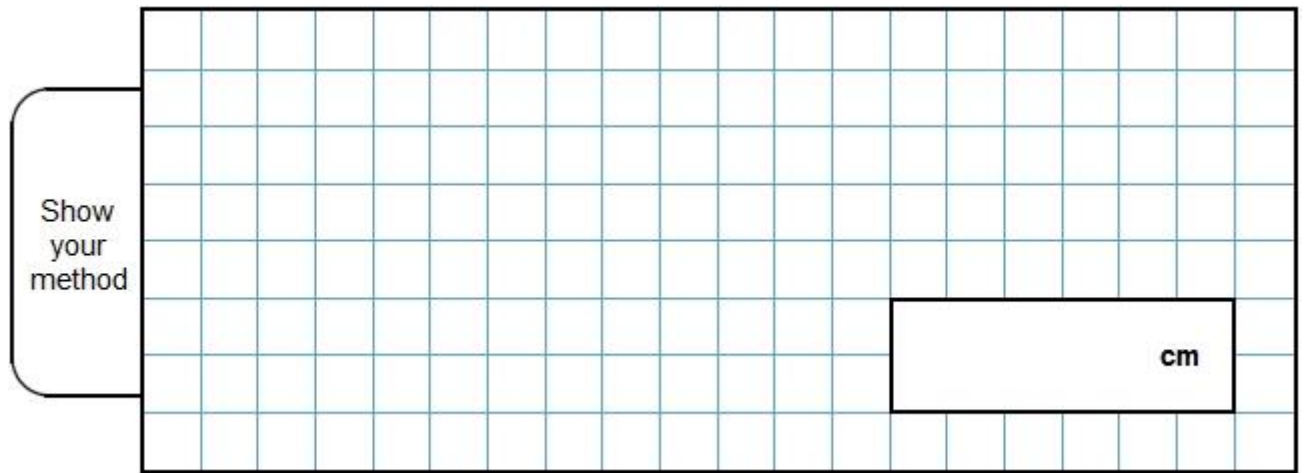
Here is an equilateral triangle inside a square.



Not actual size

The perimeter of the triangle is 48 centimetres.

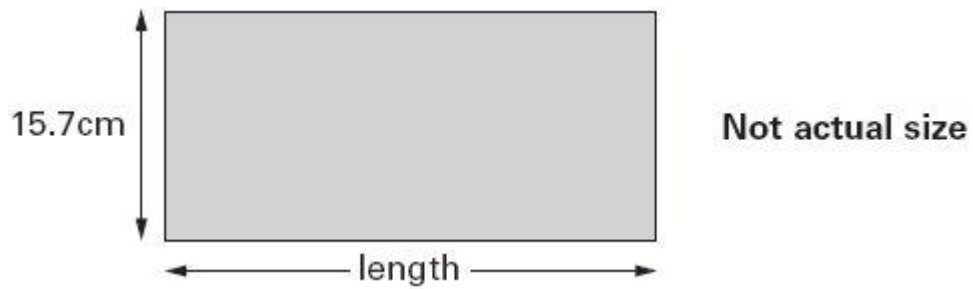
What is the perimeter of the **square**?



2 marks

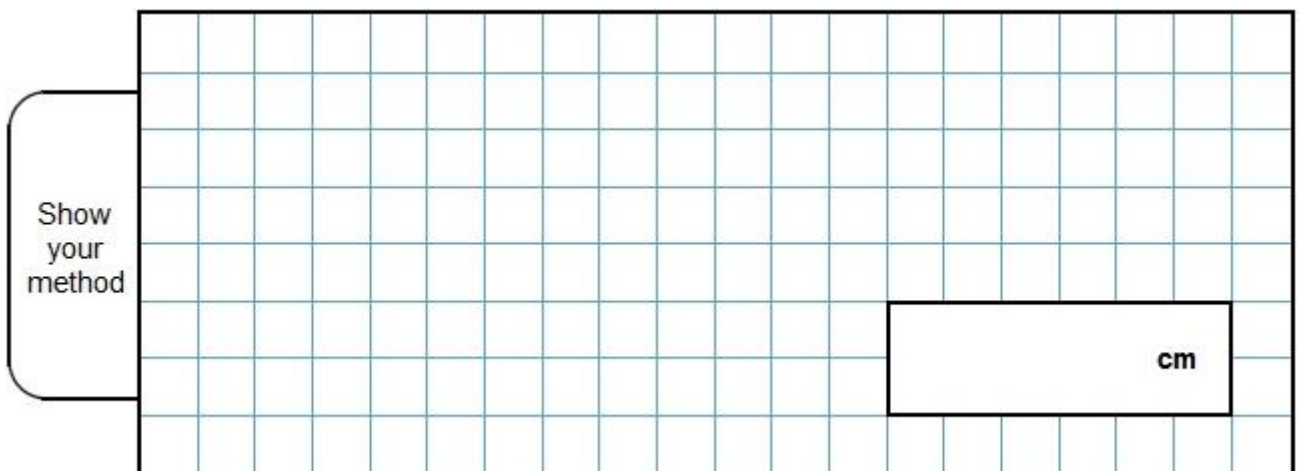
Q24.

Here is a rectangle with a width of 15.7 centimetres.



The **perimeter** of this rectangle is 85 centimetres.

Calculate the length of the rectangle.



2 marks

Q27.



A bottle holds **1 litre** of lemonade.

Rachel fills **5** glasses with lemonade.

She puts **150 millilitres** in each glass.

How much lemonade is left in the bottle?

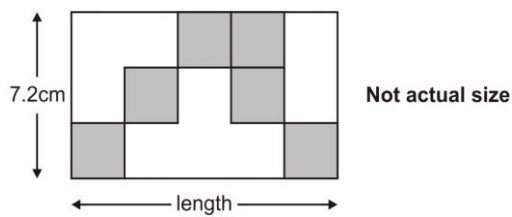
Show your method

ml

2 marks

Q28.

Here is a rectangle with six identical shaded squares inside it.



The width of the rectangle is **7.2 centimetres**.

Calculate the **length** of the rectangle.

Show your method

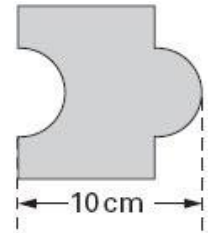
cm

2 marks

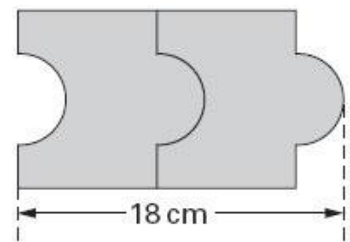
Q29.

Josh has some tiles.

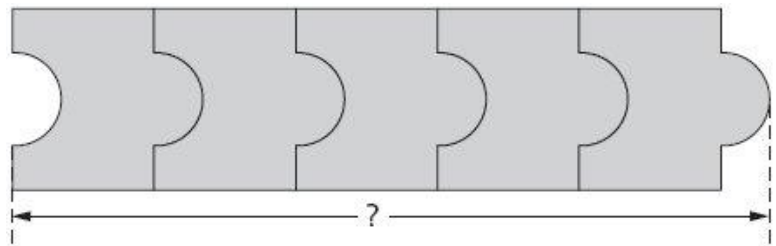
Not actual size



Each tile is 10 cm long.



Two tiles fitted together are 18 cm long.



Calculate the length of **five** tiles fitted together.

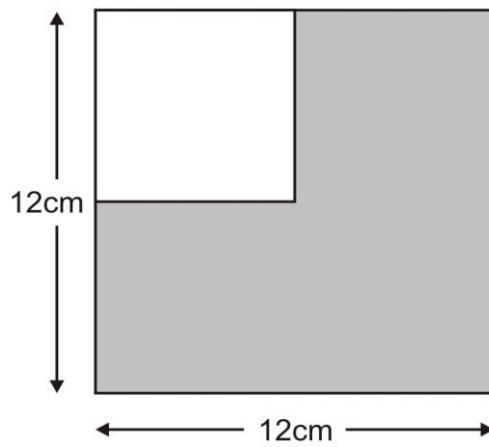
Show your method

2 marks

Q30.

A white square is painted in one corner of a grey square.

Each side of the white square is **half** the length of a side of the grey square.



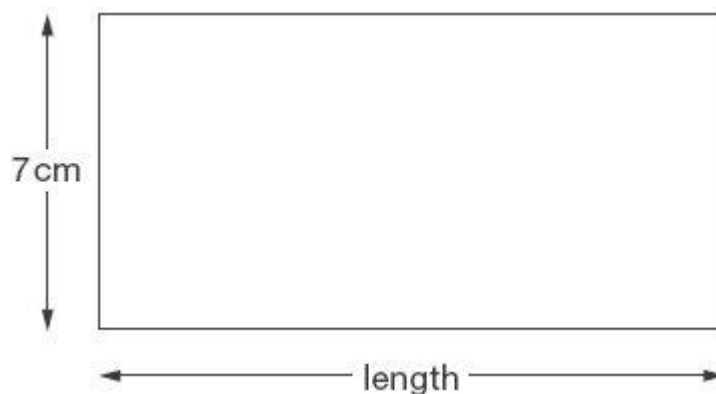
Not actual size

What is the **area** of the grey section?

Show your method

The grid is 12 units wide and 12 units high. A small box on the right side of the grid contains the text "cm²".

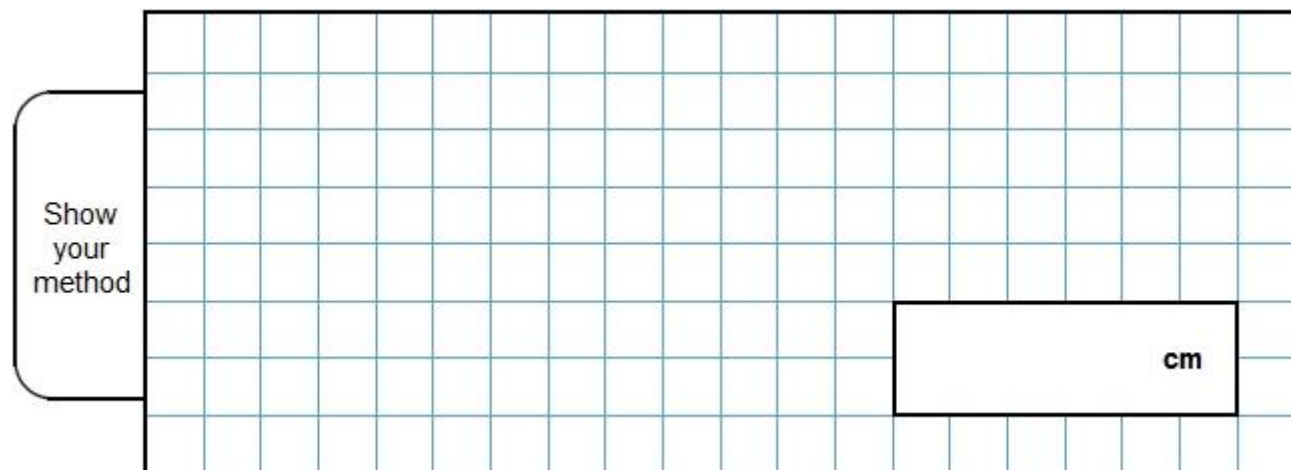
Q31.



Not actual size

The perimeter of this rectangle is 50 centimetres.

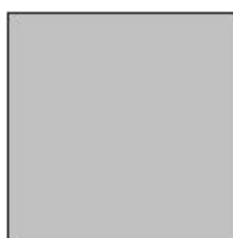
Calculate the length of the rectangle.



2 marks

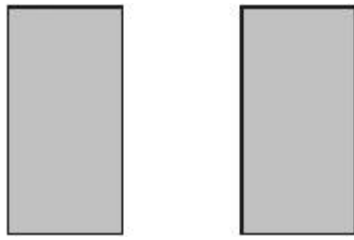
Q32.

The perimeter of a square is 72 centimetres.

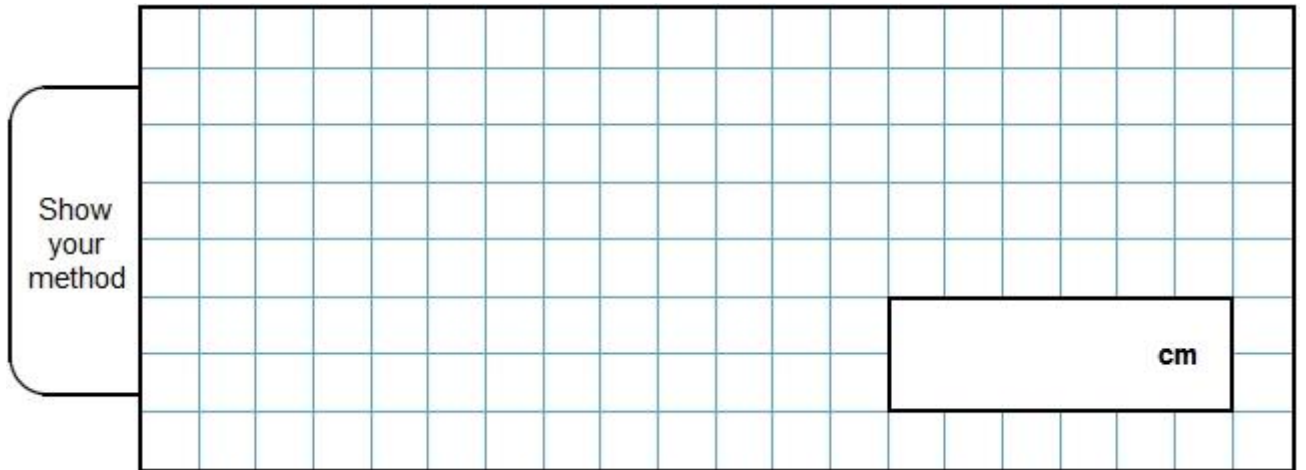


Not actual size

The square is cut in half to make two identical rectangles.



What is the perimeter of **one** rectangle?

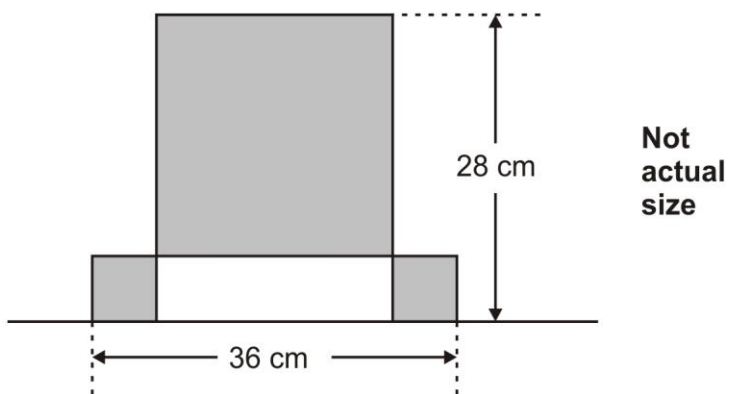


2 marks

Q33.

This design has **one large square** and **two identical small squares**.

The design measures 36 centimetres by 28 centimetres.



Calculate the length of a side of the **large** square.

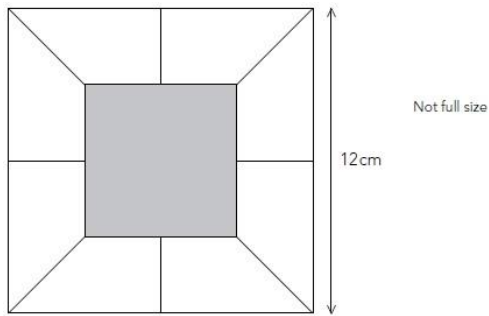
Show your method

2 marks

Q34.

The diagram shows a square of side length 12 cm.

Inside the square are 8 congruent trapeziums and a shaded square.



The **side length** of the shaded square is **6 cm**.

What is the area of one of the trapeziums?

Show your method

3 marks

Q35.

The time is 10:35am.



Kate says,

'The time is closer to 11:00am than to 10:00am'.

Explain why Kate is correct.

1 mark