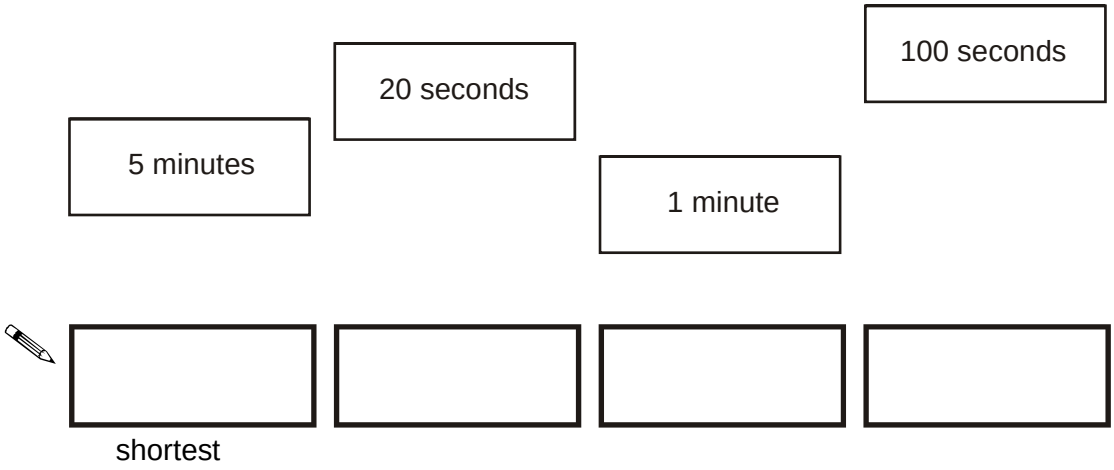
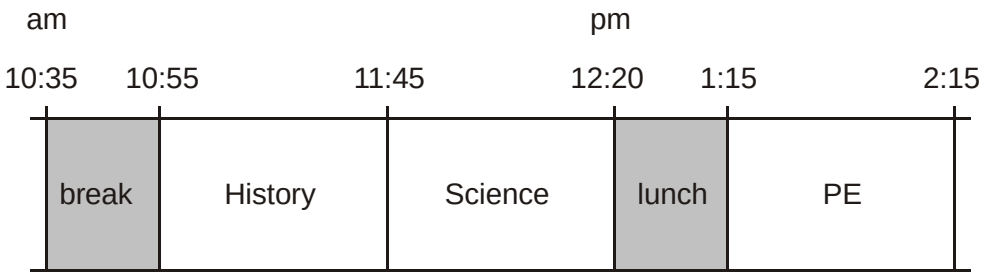
1. Put these times in order, starting with the shortest.



shortest

1 mark

2. Here is part of the timetable for Class 6 on a Monday.



Look at the timetable.

How long is it from the **end** of break to the **start** of lunch?

.....

1 mark

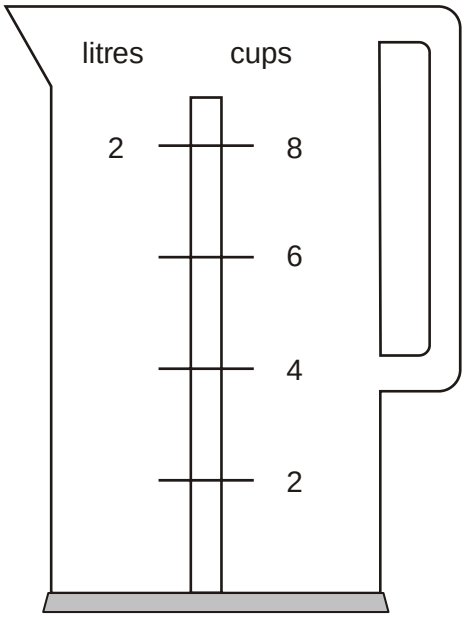
Nisha leaves the Science lesson after 25 minutes.

Then she goes to the dentist.

What time does she leave the Science lesson?

1 mark

3. Nisha's kettle holds 2 litres of water.



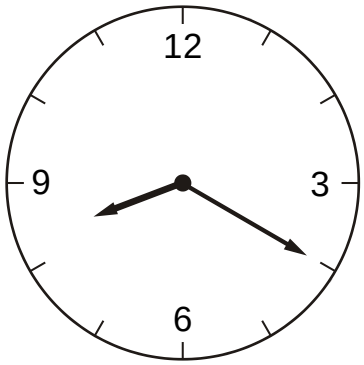
How many millilitres are equal to 1 cup?

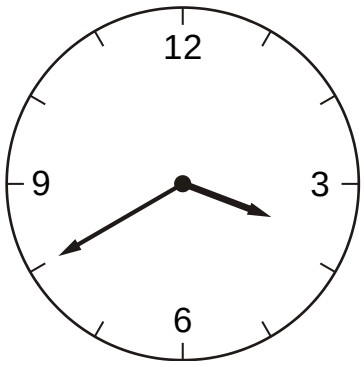
ml

1 mark

4. Here are two clock faces.

Join each clock face to the correct digital time.





9:20

3:40

4:40

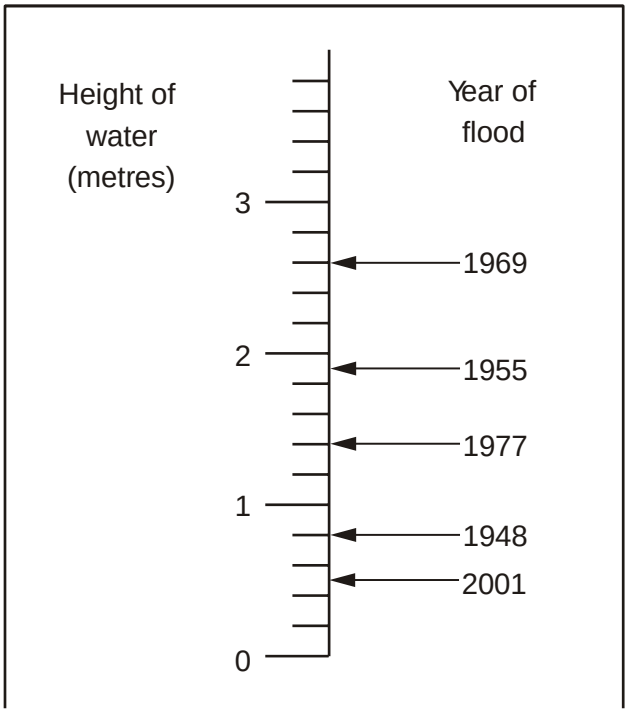
8:40

8:20

4:20

2 marks

5. This scale shows the dates of floods and the height of the water in the floods.



How high was the water in the 1955 flood?

m

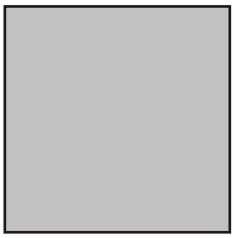
1 mark

How much higher was the water in the 1969 flood than in the 1948 flood?

m

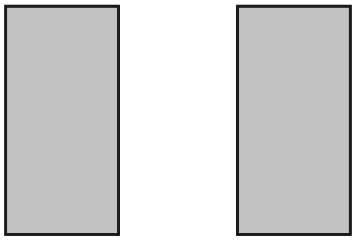
1 mark

6. 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?

Show your **method**. You may get a mark.

cm

2 marks

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

She cuts off 30 centimetres.

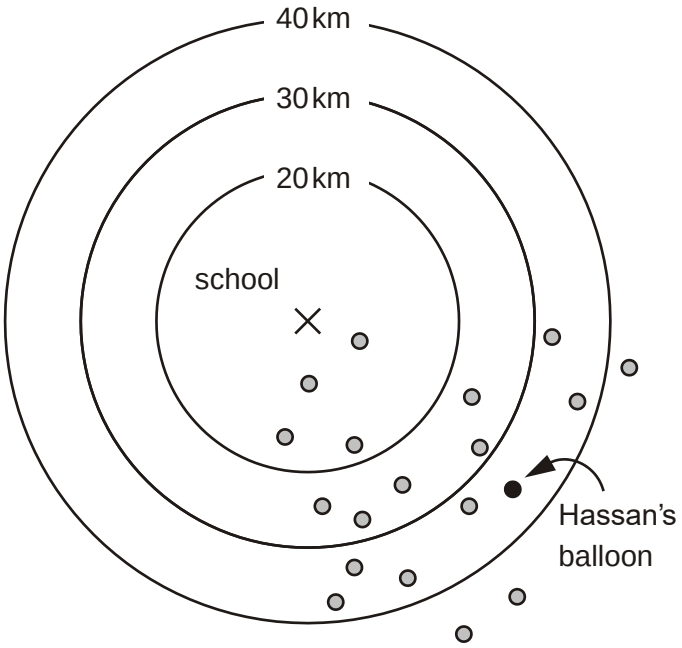
How many centimetres of ribbon are left?

cm

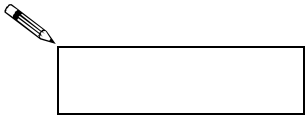
1 mark

8. Class 6 launched some balloons at a school fete.

This diagram shows how far some of the balloons travelled.



How many balloons on the diagram travelled between 20km and 30km?



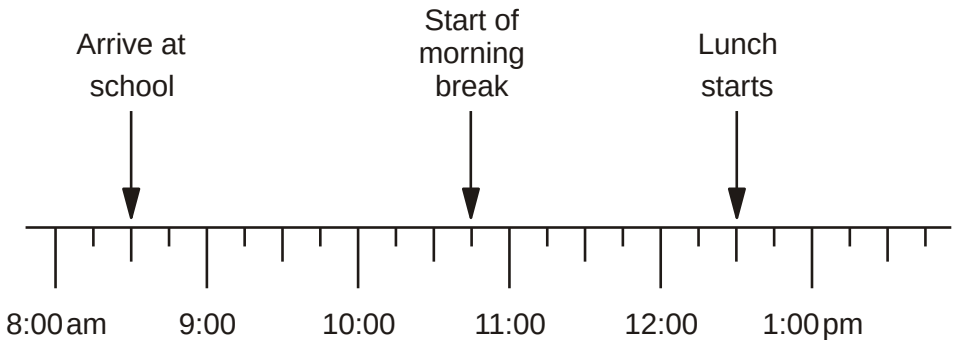
1 mark

Estimate how far Hassan's balloon travelled.

km

1 mark

9. Jamie makes a time line of part of his day.



What time does Jamie's morning break start?

am

1 mark

Lunch lasts for three-quarters of an hour.

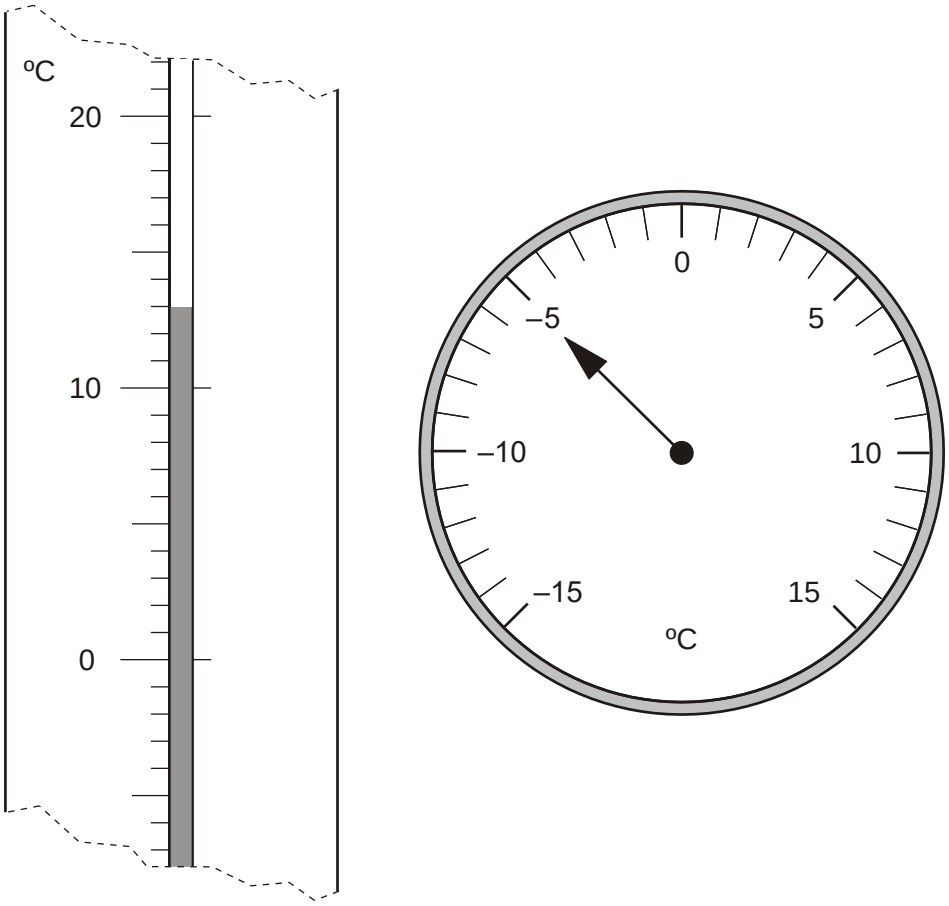
What time does lunch **finish**?

pm

1 mark

10. Here are two thermometers.

They show two different temperatures.



What is the **difference** between the two temperatures?

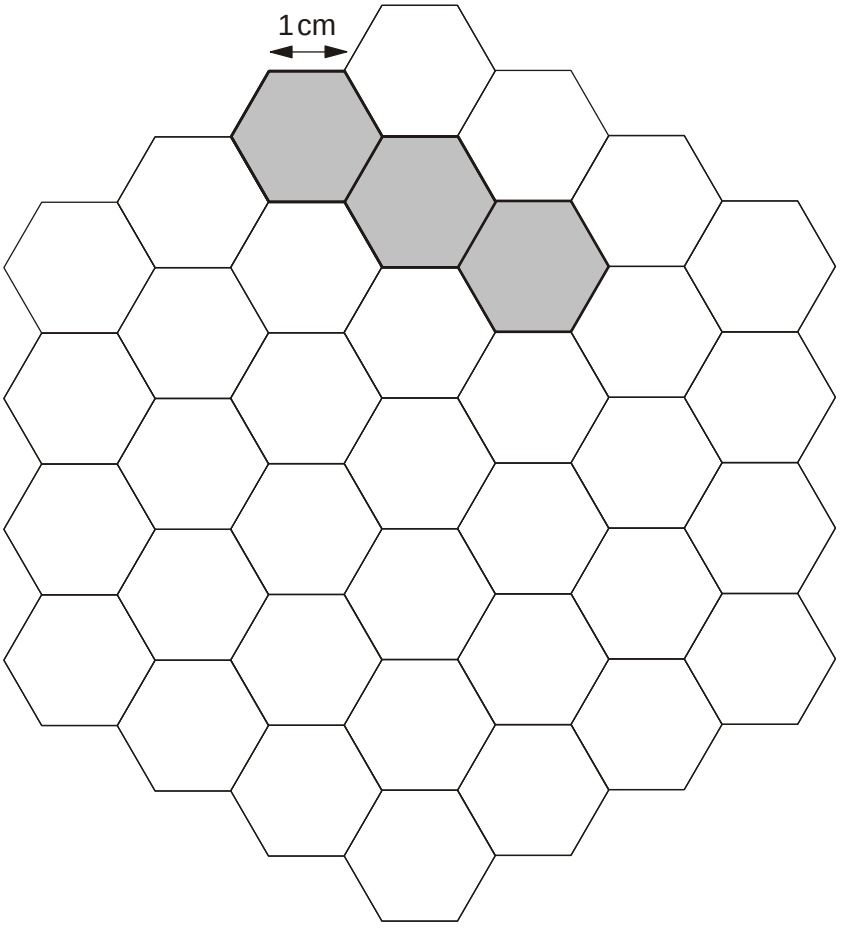
degrees

1 mark

11. Here is a grid of regular hexagons.

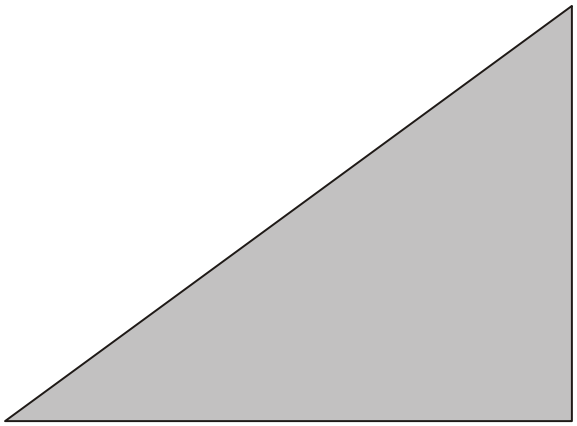
The shaded shape has an area of 3 hexagons and a perimeter of 14cm.

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



1 mark

12.



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

cm

1 mark

13. 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

14. Jamie, Kate and Hassan run a 50m 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?

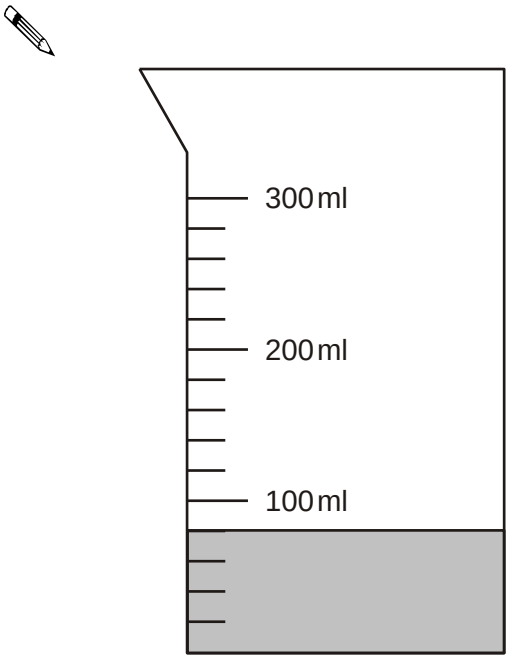
seconds

1 mark

15. 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

16.

The cost for using a minibus is £1.36 for each kilometre.

8 friends go on a 114 kilometre journey.

They share the cost equally.

How much does each person pay?

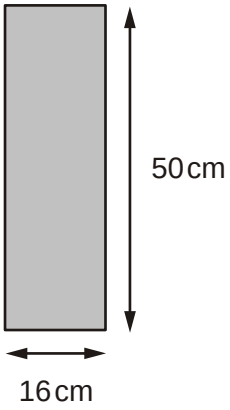
Show your **method**. You may get a mark.

£

2 marks

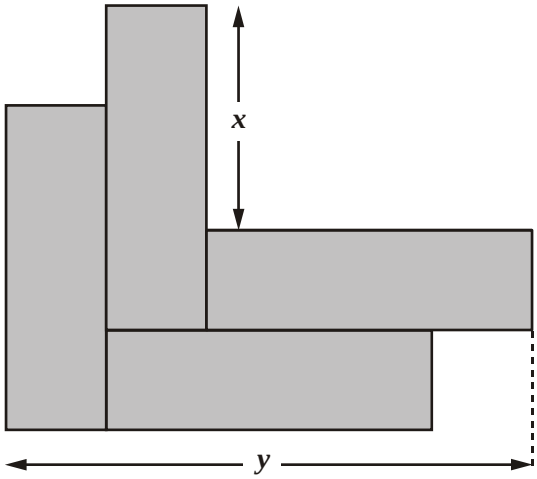
17. Kate has some rectangles.

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**

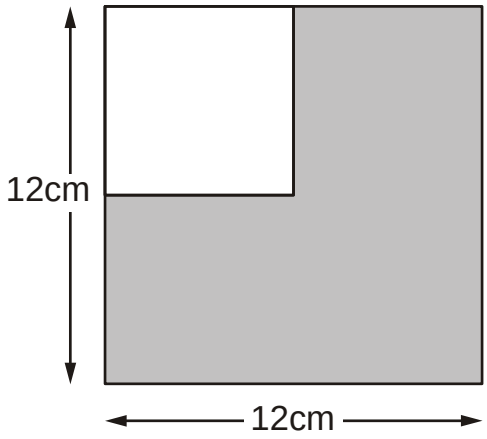
1 mark

y = **cm**

1 mark

18. 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**. You may get a mark.

cm²

2 marks

19. A clock shows this time.

How long is it from this time until 5pm?

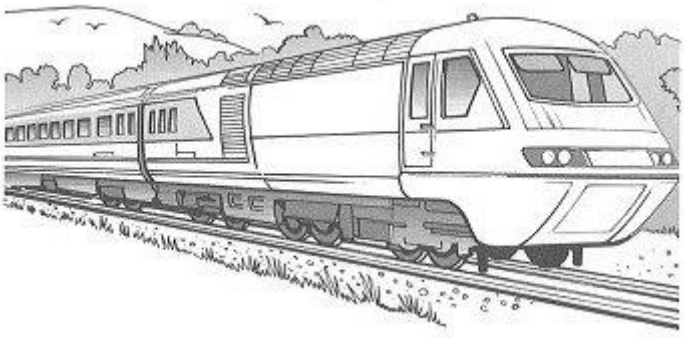
1 mark

What time was it quarter of an hour before the time on the clock?

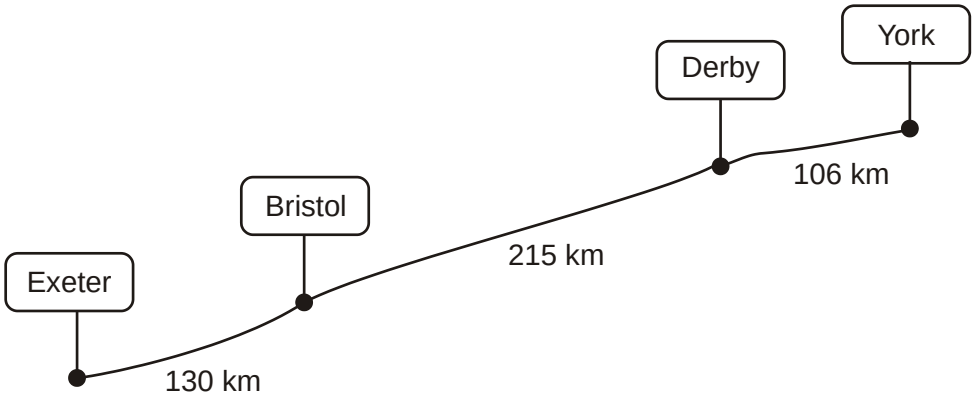
pm

1 mark

20.



The diagram shows distances on a train journey from Exeter to York.



How many kilometres is it altogether from **Exeter** to **York**?

km

1 mark

What is the distance from **Derby** to **York** rounded to the nearest 10km?

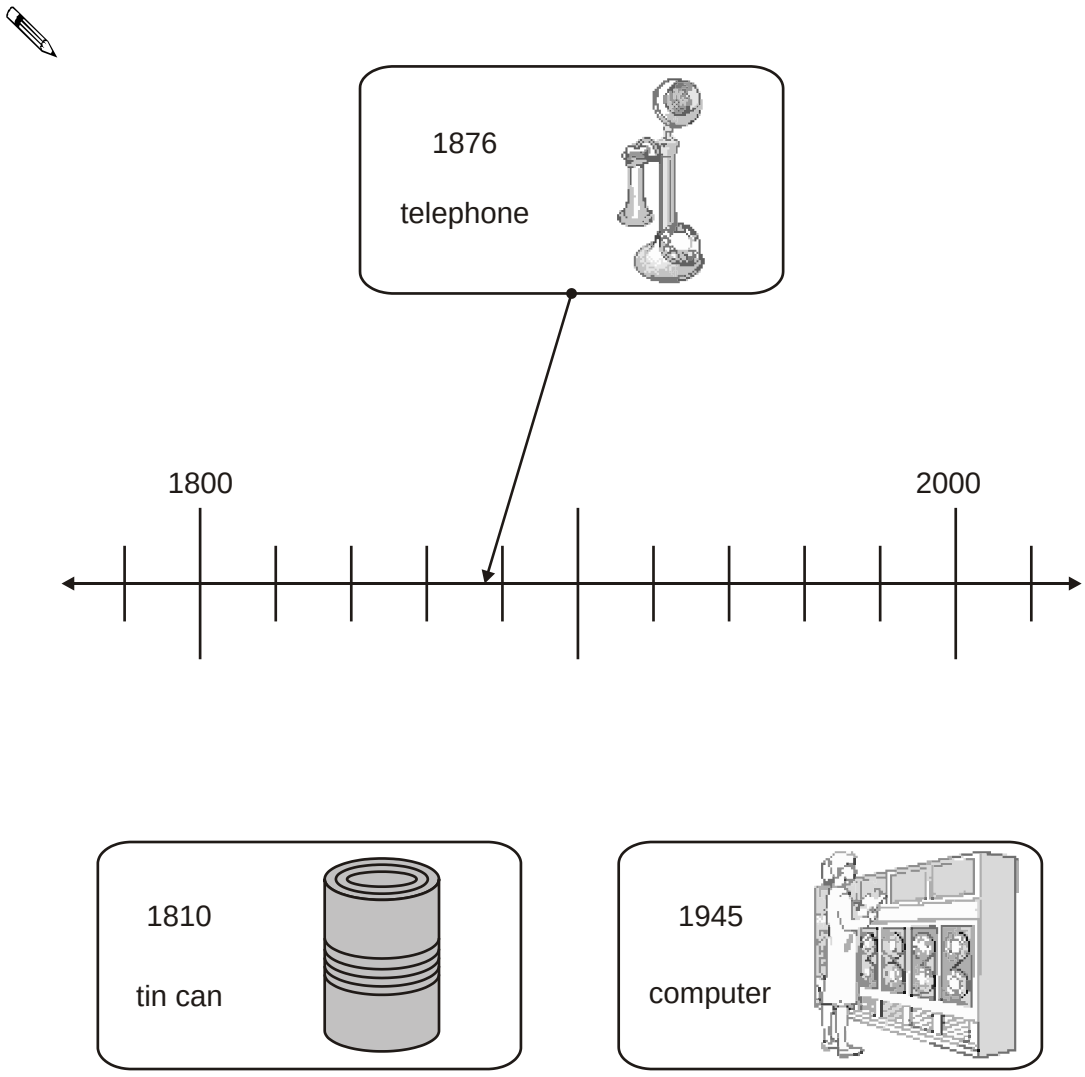
km

1 mark

21. Here is part of a time line.

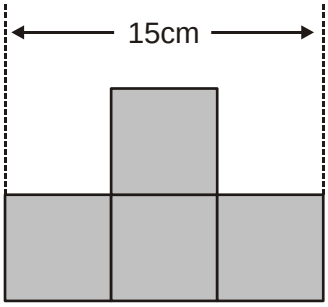
Draw a line from each invention to the correct point on the time line.

One has been done for you.



2 marks

22. This shape is made from 4 shaded squares.



Not actual size

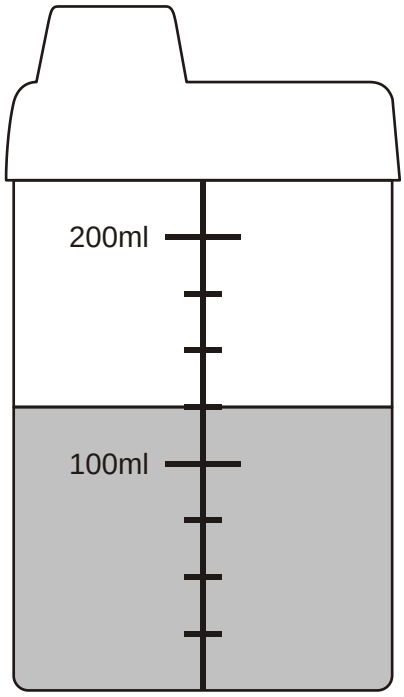
Calculate the perimeter of the shape.

Show your **working.** You may get a mark.

cm

2 marks

23. Here is a baby's drinking cup.



How many millilitres of water are in the cup?

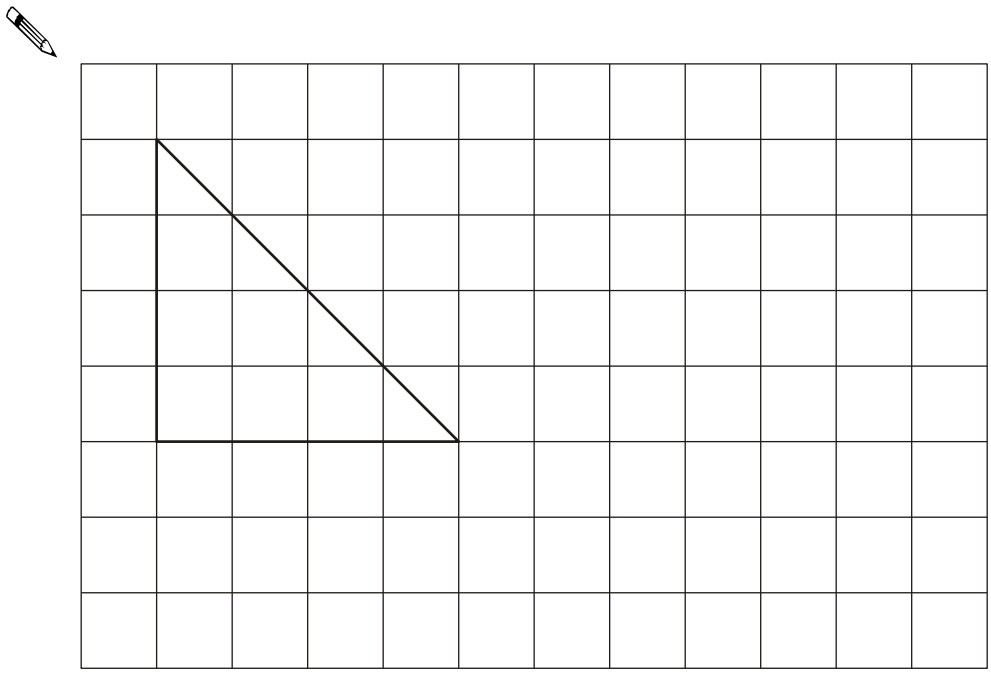
ml

1 mark

24. Here is a triangle drawn on a square grid.

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

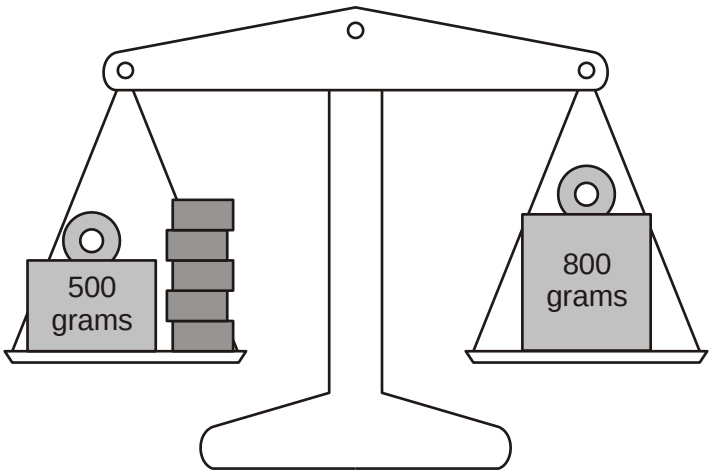
Use a ruler.



1 mark

25. Lin has five blocks which are all the same.

She balances them on the scale with two weights.

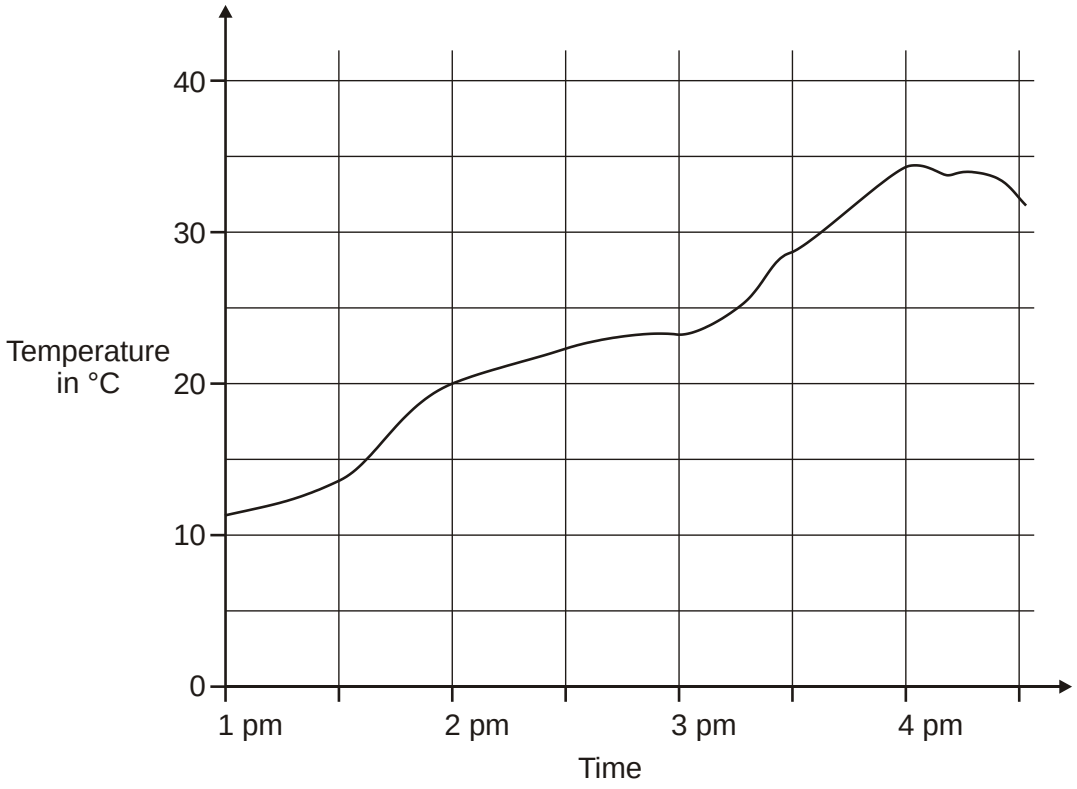


Calculate the weight of **one** block.

Show your **working.** You may get a mark.

2 marks

26. This graph shows the temperature in a greenhouse.



Use the graph to find the time when the temperature was 25°C.

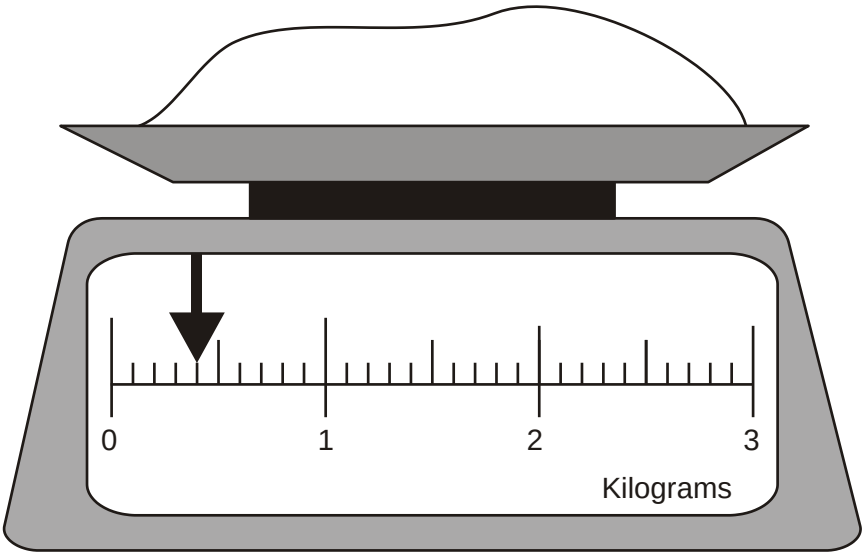
1 mark

Use the graph to find the difference between the temperature at 2 pm and the temperature at 4 pm.

degrees

1 mark

27. Here is some flour on a weighing scale.

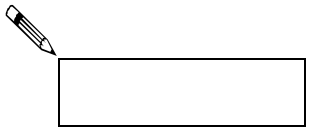


How many **grams** of flour are on the scale?

grams

1 mark

How much more flour must be added to the scale to make 1.6 kg?



1 mark

28.

These are the radio programmes one morning.

7:00	Music show
7:55	Weather report
8:00	News
8:15	Travel news
8:25	Sport
8:45	Holiday programme

Josh turns the radio on at 7:25 am.

How many minutes does he have to wait for the Weather report?

minutes

1 mark

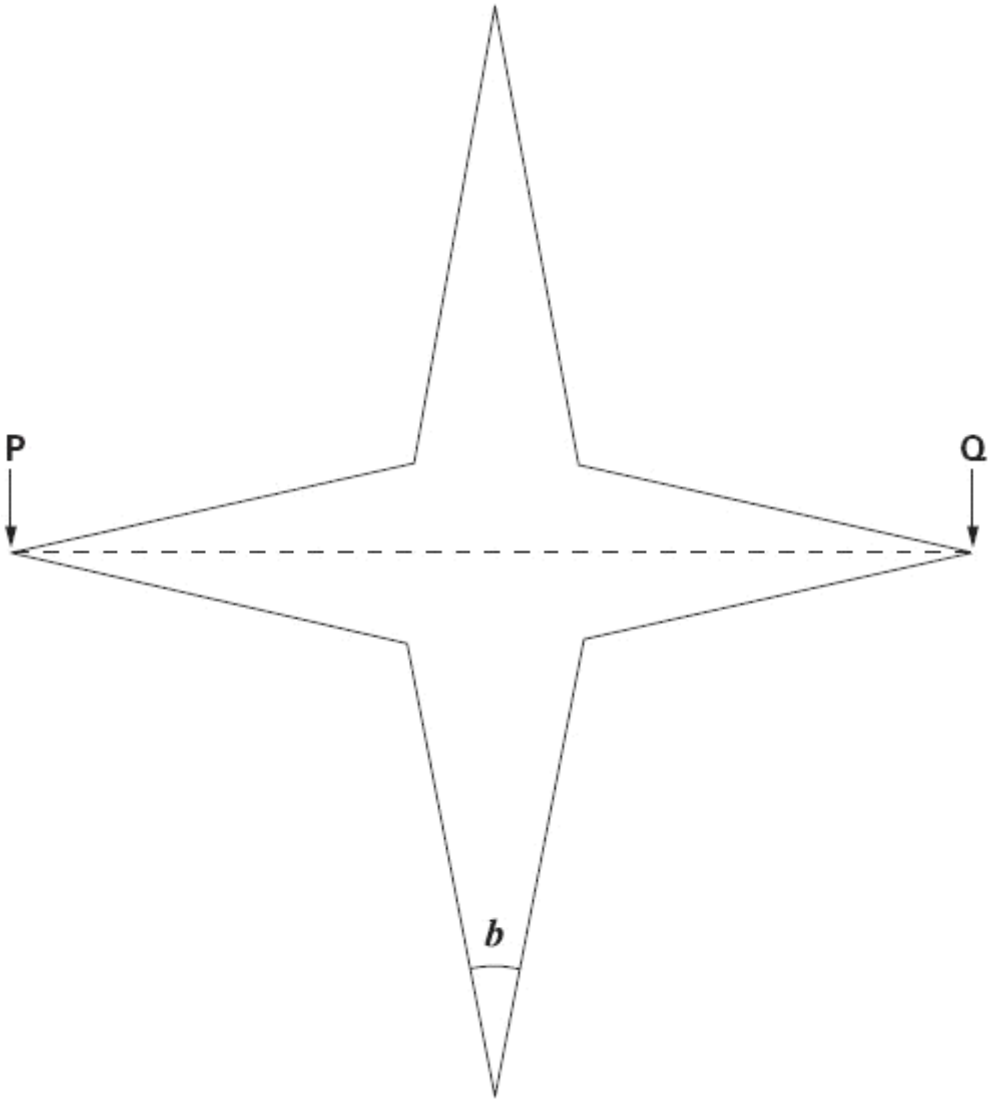
The Holiday programme lasts for 40 minutes.

At what time does the Holiday programme finish?

am

1 mark

29. Look at this star.



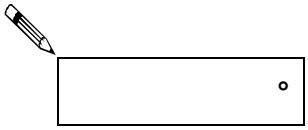
Use a ruler to measure **accurately** the **width** of the star, from **P** to **Q**.

Give your answer in **millimetres**.

mm

1 mark

Use a protractor (angle measurer) to measure **angle *b***.

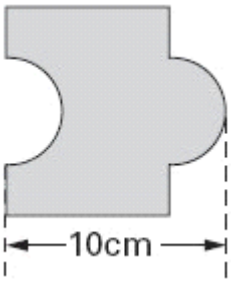


°

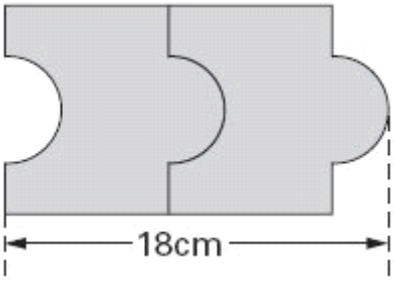
1 mark

30. Josh has some tiles.

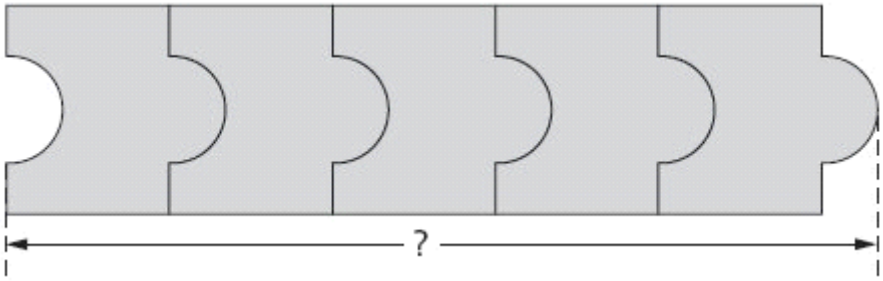
Not actual size



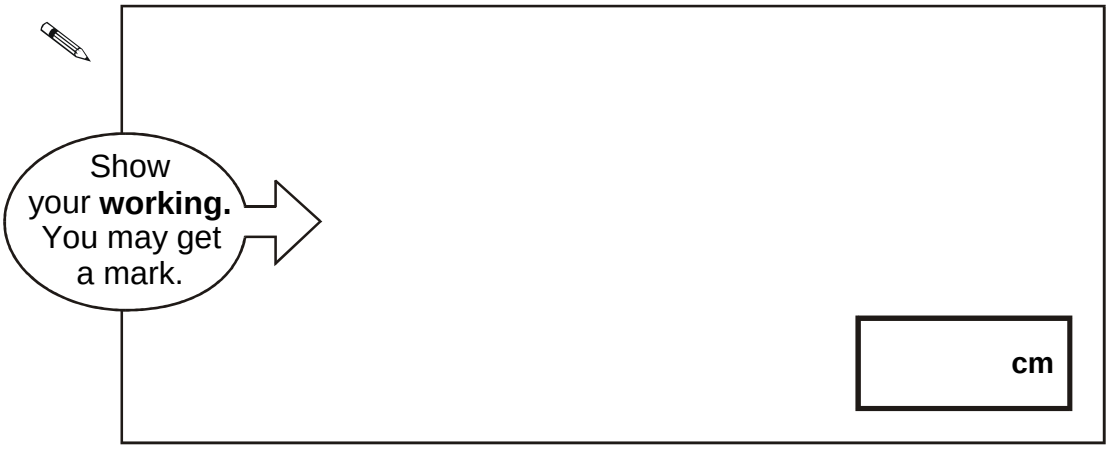
Each tile is 10cm long.



Two tiles fitted together are 18cm long.



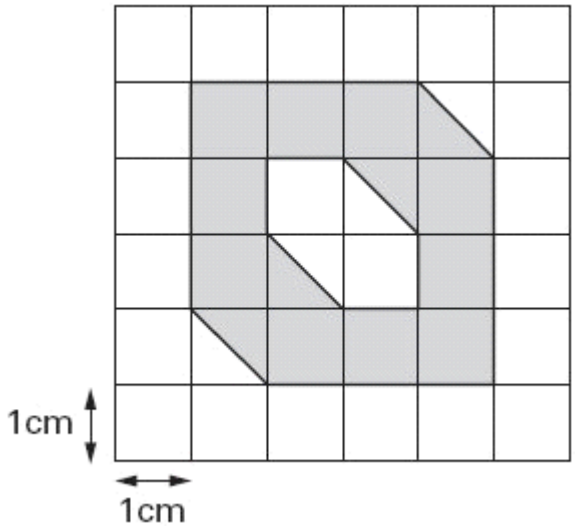
Calculate the length of **five** tiles fitted together.



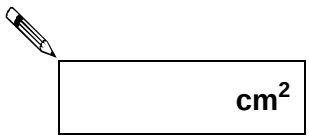
2 marks

31. Here is a 1cm square grid.

Some of the grid is shaded.

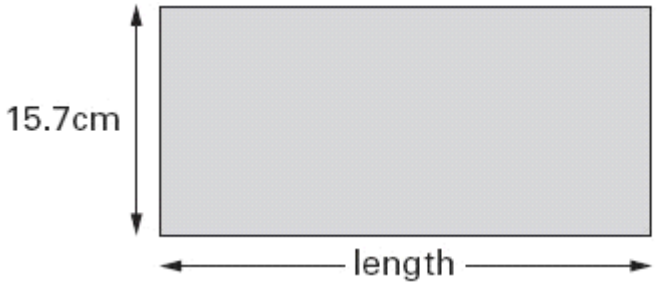


What is the **area** that is shaded?



1 mark

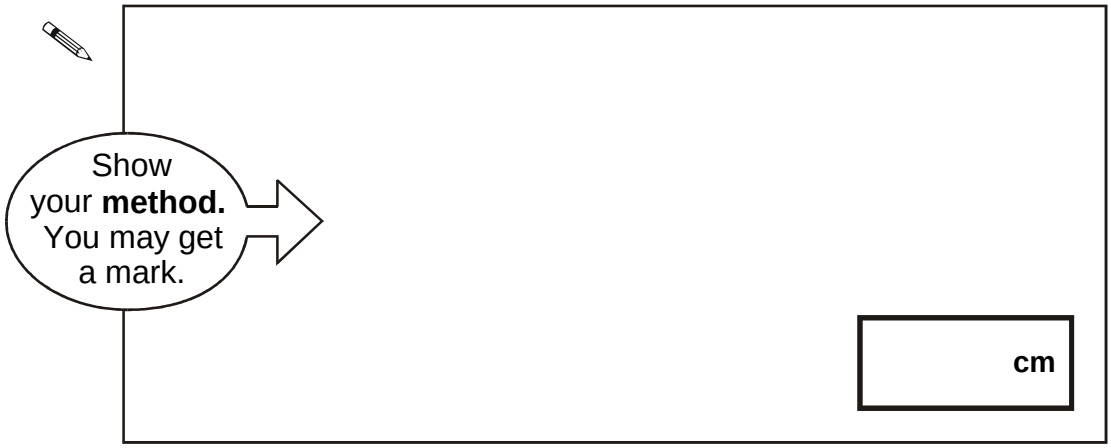
32. Here is a rectangle with a width of 15.7 centimetres.



Not actual size

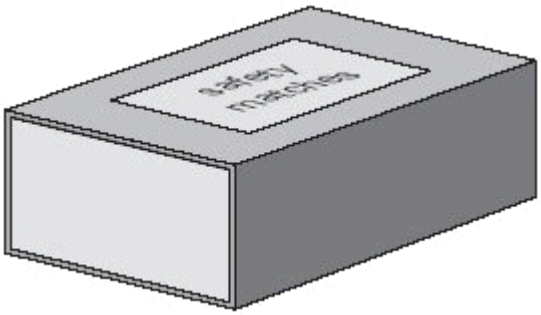
The **perimeter** of this rectangle is 85 centimetres.

Calculate the length of the rectangle.



2 marks

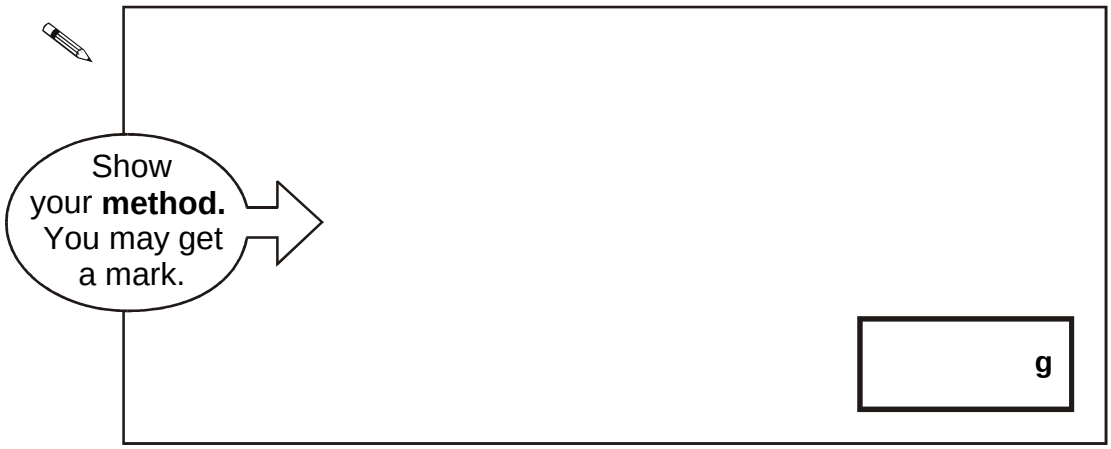
33.



A box contains 220 matches and weighs 45 grams.

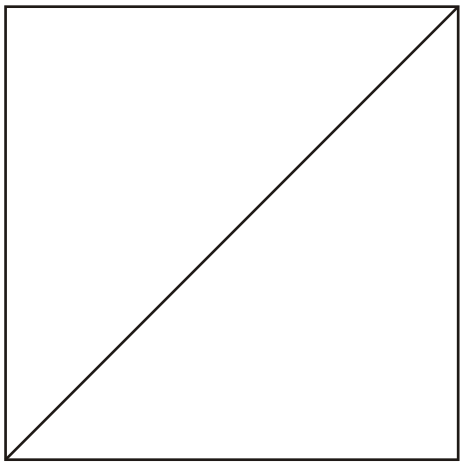
The empty box weighs 12 grams.

Calculate the weight of **one** match.



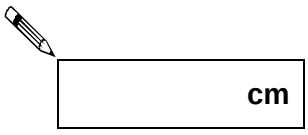
2 marks

34.



Measure accurately the length of the **diagonal** of this square.

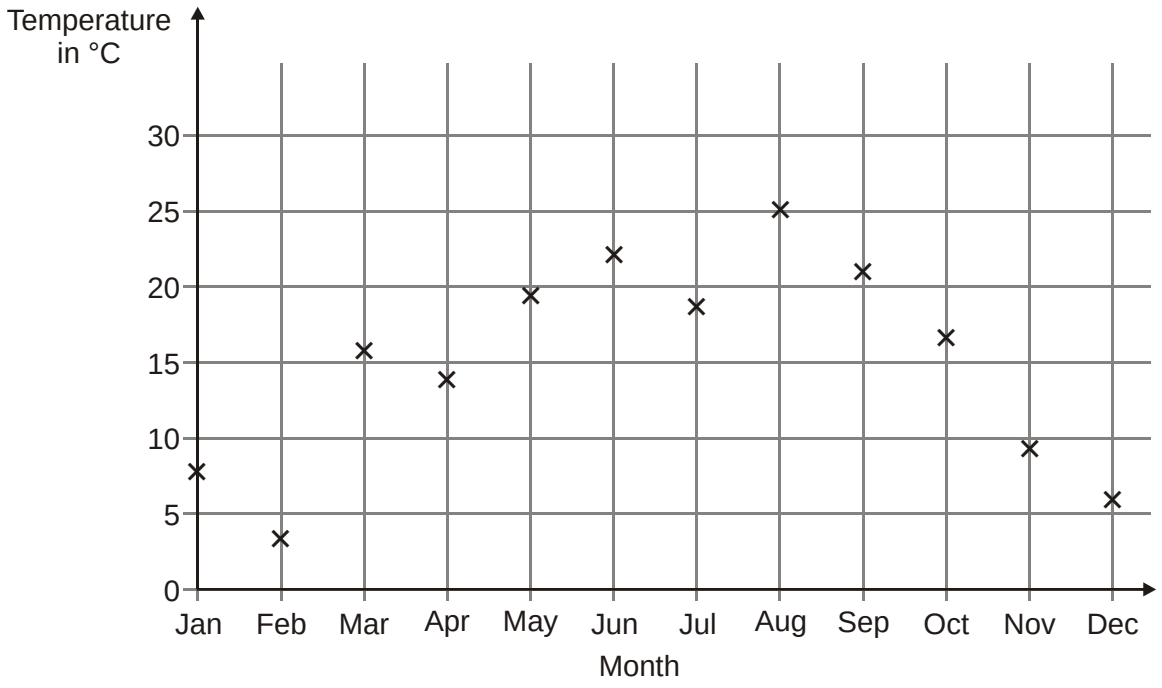
Give your answer in **centimetres**.



1 mark

35. Abbie takes the temperature outside at midday on the first day of each month.

The graph shows her results from January to December.



How many months on the graph show a temperature between **10°C** and **20°C**?

1 mark

Find the difference in temperature shown on the graph between **July** and **August**.

degrees

1 mark

36.

A film starts at 6:45pm.

It lasts 2 hours and 35 minutes.

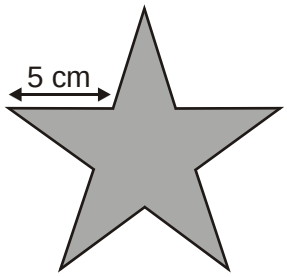
What time will the film finish?

pm

1 mark

37. Millie has some star-shaped tiles.

Each edge of a tile is 5 centimetres long.



Not actual size

She puts two tiles together to make this shape.

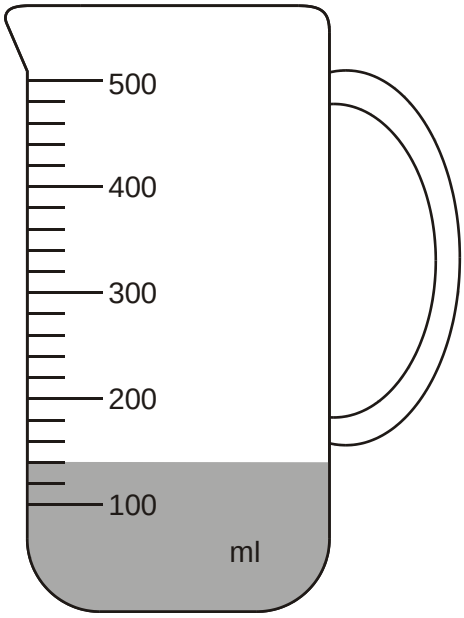
Work out the perimeter of Millie's shape.

cm

1 mark

38. Mr Khan makes a blackcurrant drink for a party.

He pours blackcurrant squash into a jug.



How much water must he add to make **500 millilitres** of drink?

ml

1 mark

39.

Here is part of a train timetable.

Edinburgh	–	09:35	–	–	13:35	–	–
Glasgow	09:15	–	11:15	13:15	–	13:45	15:15
Stirling	09:57	–	11:57	13:57	–	14:29	15:57
Perth	10:34	10:51	12:34	14:34	14:50	15:15	16:35
Inverness	–	13:10	–	–	17:05	–	–

How long does the first train from Edinburgh take to travel to Inverness?

1 mark

Ellen is at Glasgow station at 1.30pm.

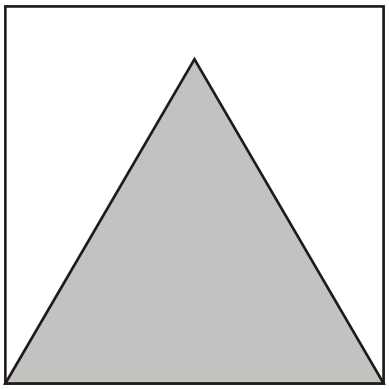
She wants to travel to Perth.

She catches the next train.

At what time will she arrive in Perth?

1 mark

40. 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**?

Show your **working.** You may get a mark.

cm

2 marks

41. Match each clock to the correct time.

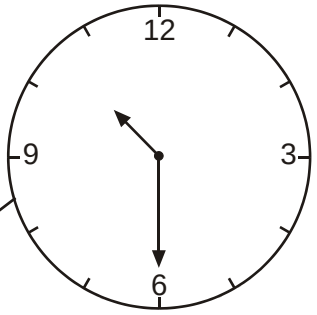
One has been done for you.

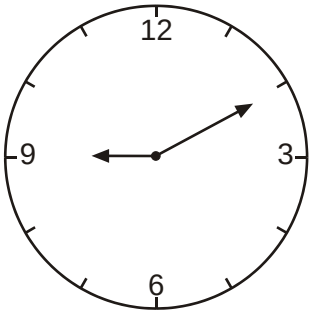
1:45

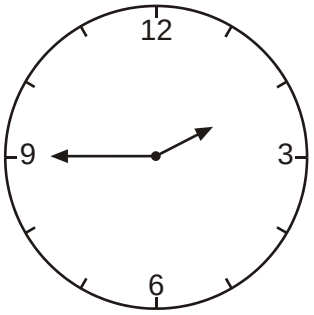
half past ten

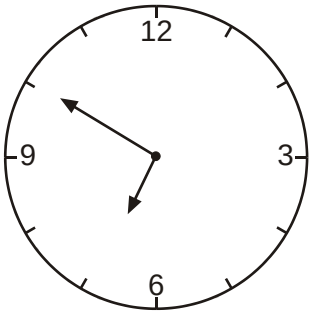
ten to seven

9:10





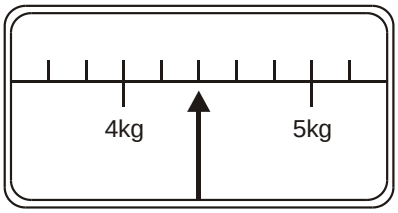




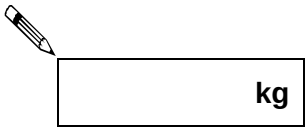
1 mark

42. This scale shows the weight of Fred's cat.

Fred's cat



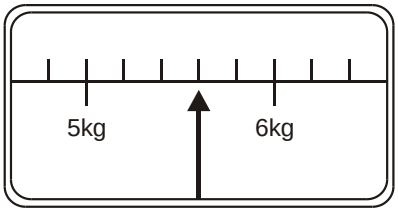
What is the weight of Fred's cat?



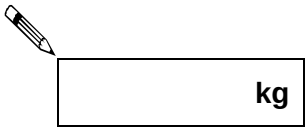
1 mark

This scale shows the weight of Fred's dog

Fred's dog

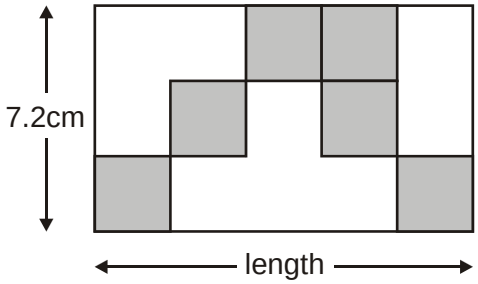


How much **more** does Fred's dog weigh than his cat?



1 mark

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



Not actual size

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

Calculate the **length** of the rectangle.

Show your **method**. You may get a mark.

cm

2 marks

44.

Every **100g** of brown bread contains **6g** of fibre.

A loaf of bread weighs 800g and has 20 equal slices.

How much fibre is there in **one** slice?

Show your **method**. You may get a mark.

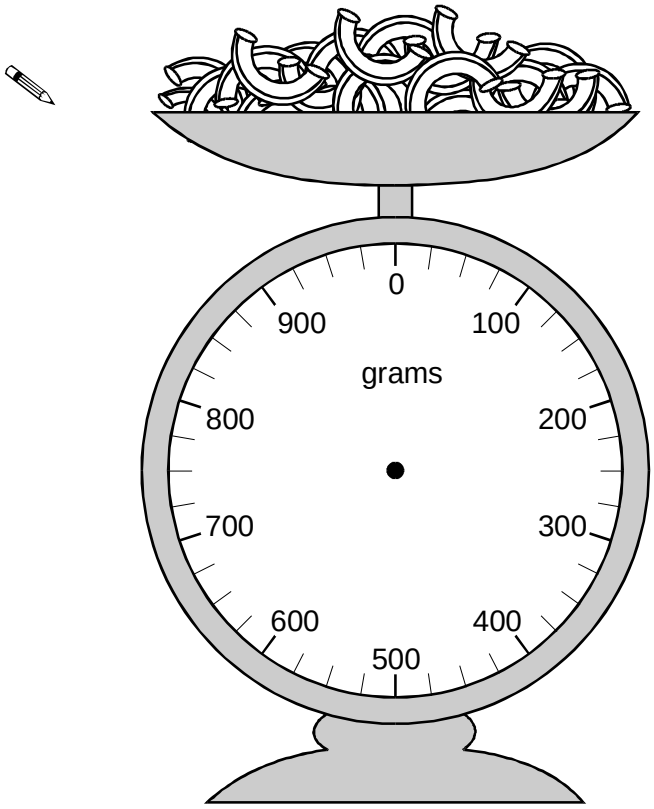
g

2 marks

45. Jamie is cooking pasta.

He weighs 350 grams of pasta.

Draw an arrow on the scale to show 350 grams.



1 mark

46.

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

Rachel fills **5** glasses with lemonade.

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

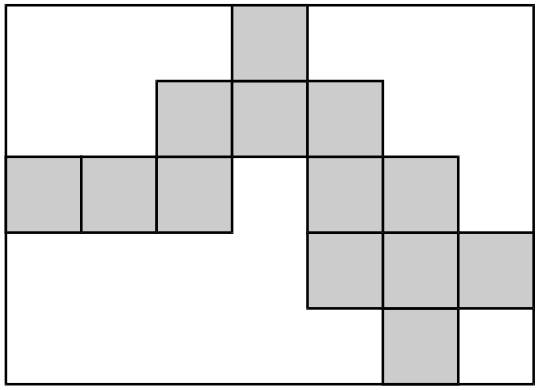
How much lemonade is left in the bottle?

Show your **method.** You may get a mark.

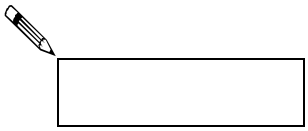
ml

2 marks

47. Here is a rectangle with 13 identical shaded squares inside it.



What fraction of the rectangle is shaded?



1 mark

48. A packet contains **1.5 kilograms** of guinea pig food.

Remi feeds her guinea pig **30 grams** of food each day.

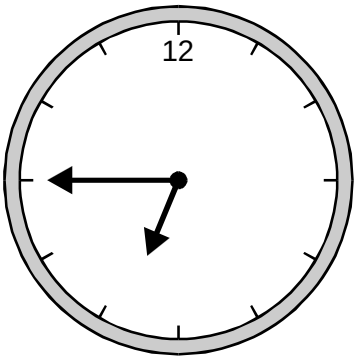
How many days does the packet of food last?

Show your **method.** You may get a mark.

days

2 marks

49. Here is a clock.



How many minutes is it **until** this clock shows 7:30?

minutes

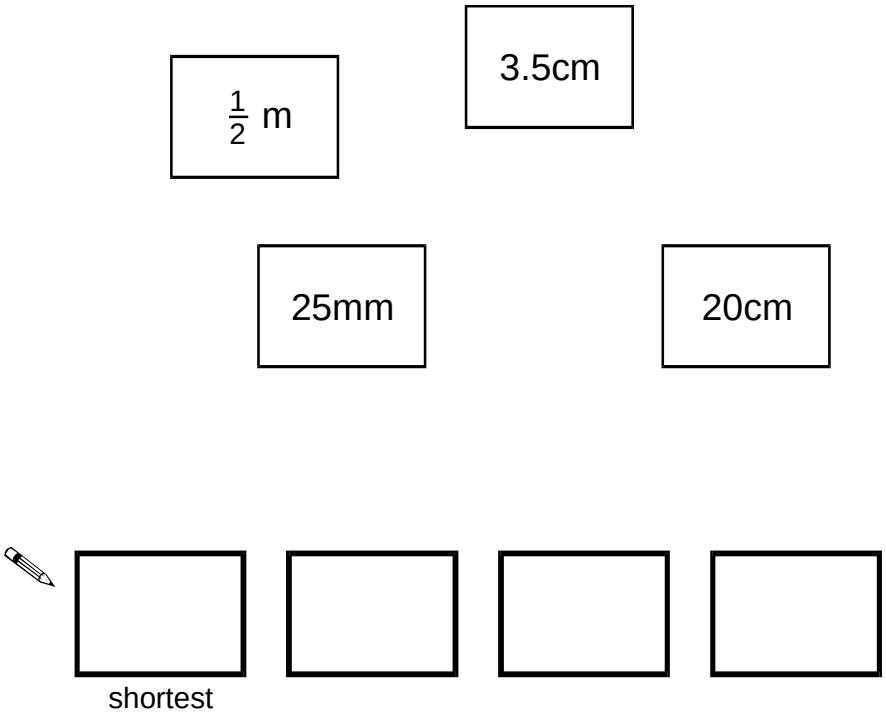
1 mark

Here is another clock.

What time will the clock show in 20 minutes?

1 mark

50. Write these lengths in order, starting with the shortest.



1 mark

51.

Here are the **start** and **finish** times of some children doing a sponsored walk.

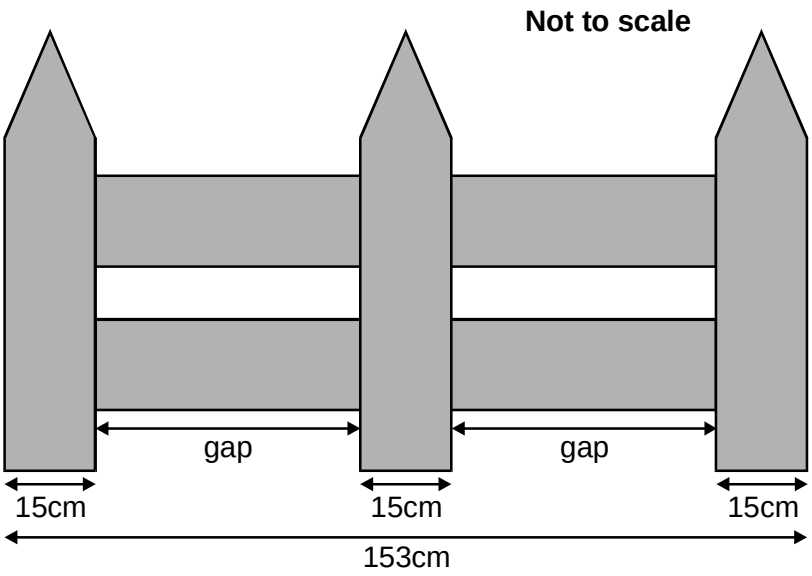
	Start time	Finish time
Claire	9:30	10:55
Ruth	9:35	11:05
Dan	9:40	11:08
Tim	9:45	11:05

How much longer did Claire take than Tim?

minutes

1 mark

52. 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.** You may get a mark.

cm

2 marks

53.

Cheddar cheese costs £7.50 for 1kg.

Marie buys 200 grams of cheddar cheese.

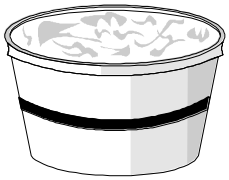
How much does she pay?

£

1 mark

Cream cheese costs £3.60 for 1kg.

Robbie buys a pot of cream cheese for 90p.



How many grams of cream cheese does he buy?

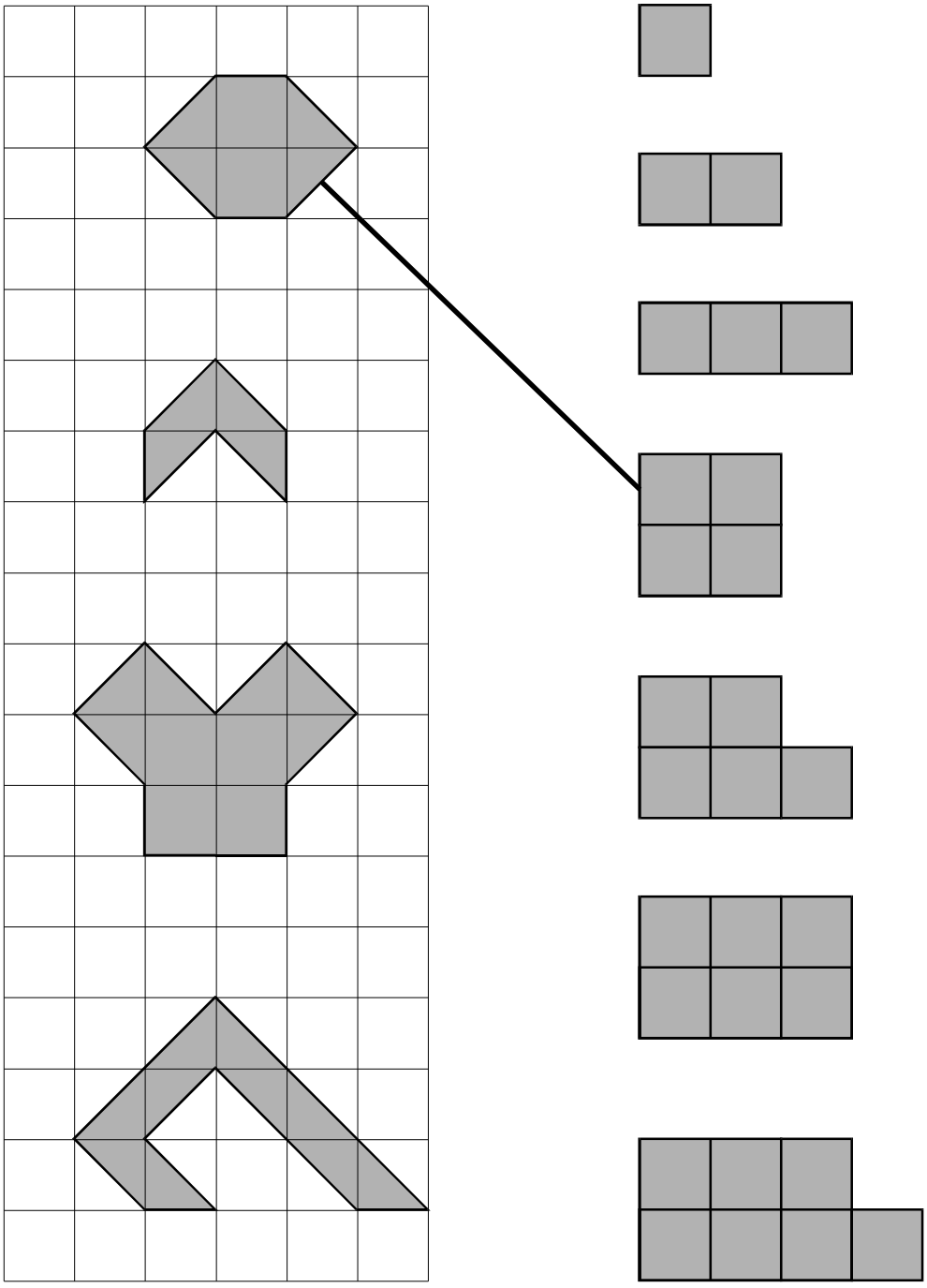
Show your **method.** You may get a mark.

grams

2 marks

54. Match each shape on the left to one with **equal area** on the right.

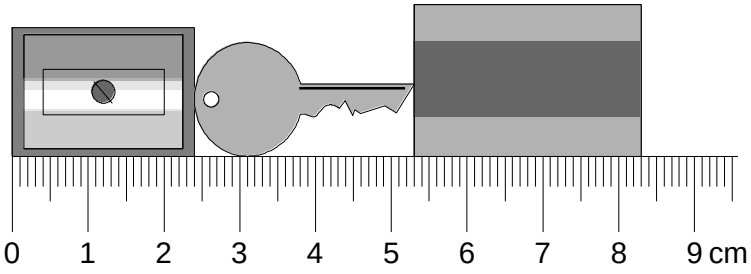
One has been done for you.



2 marks

55. Here are a pencil sharpener, a key and a rubber.

Actual size



What is the length of **all three things** together?

Give your answer in **millimetres.**

mm

1 mark

What is the length of the **key**?

Give your answer in **millimetres**.

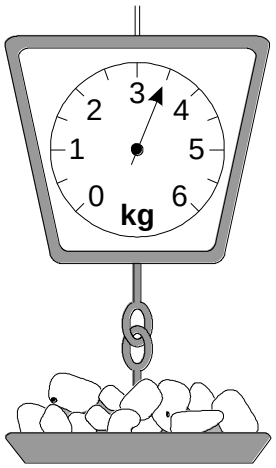
mm

1 mark

56. This table shows the weight of some fruits and vegetables.

Complete the table.

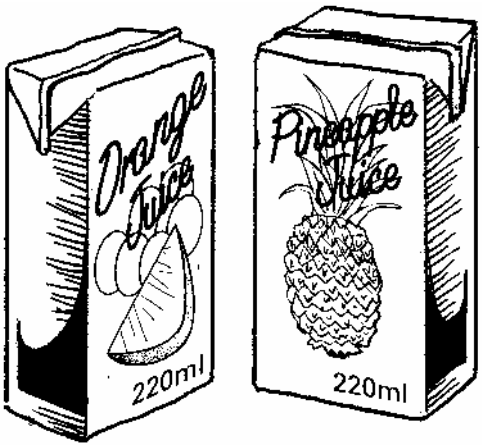
	grams	kilograms
potatoes	3500	3.5
apples		1.2
grapes	250	
ginger		0.03



2 marks

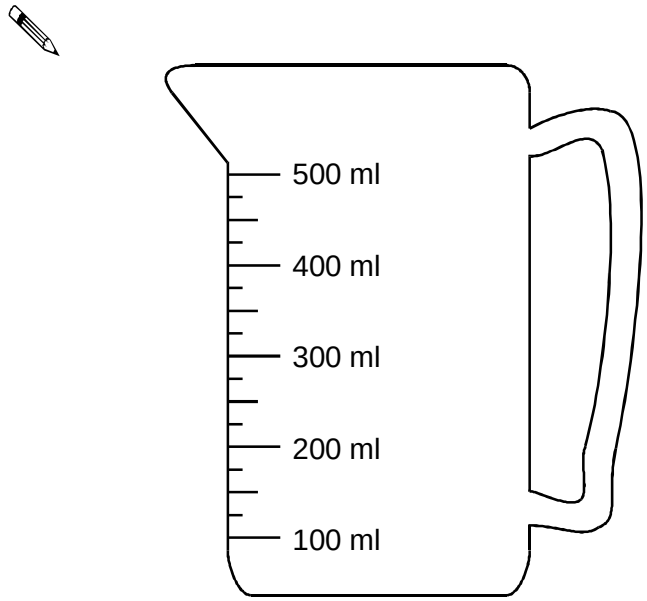
57. Mina has two cartons of juice.

Each carton contains **220ml.**



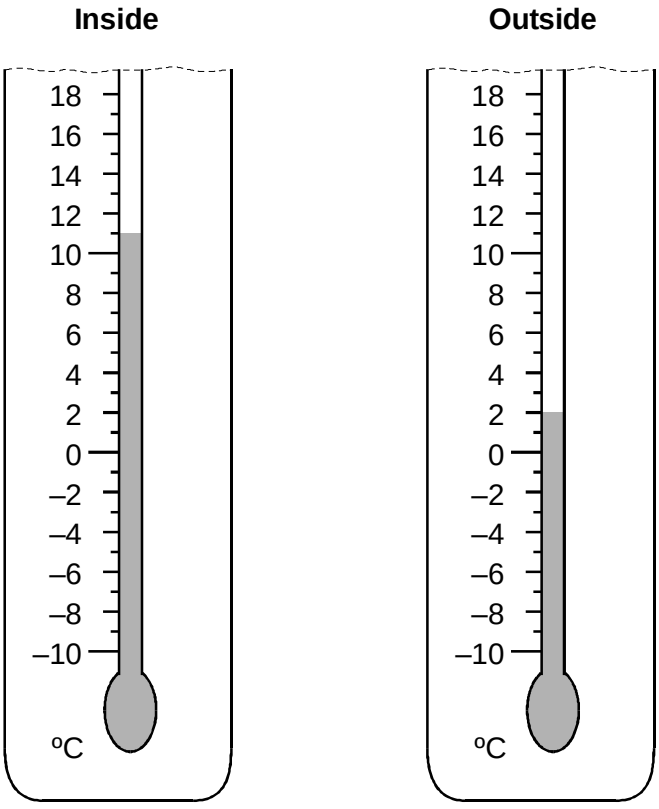
She empties them both into this jug.

Draw an arrow (→) to show the level of the mixture in the jug.



1 mark

58. Two thermometers show the temperature inside and outside a greenhouse on a day in January.



How many degrees **warmer** was it inside the greenhouse than outside?

°C

1 mark

Later the temperatures were

inside	outside
–1°C	–8°C

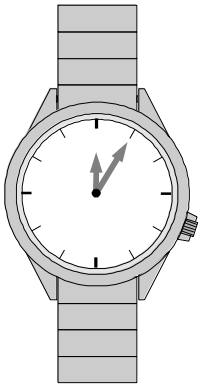
What is the difference between these two temperatures?

°C

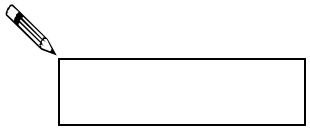
1 mark

59. One of these watches is **3 minutes fast.**

The other watch is **4 minutes slow.**

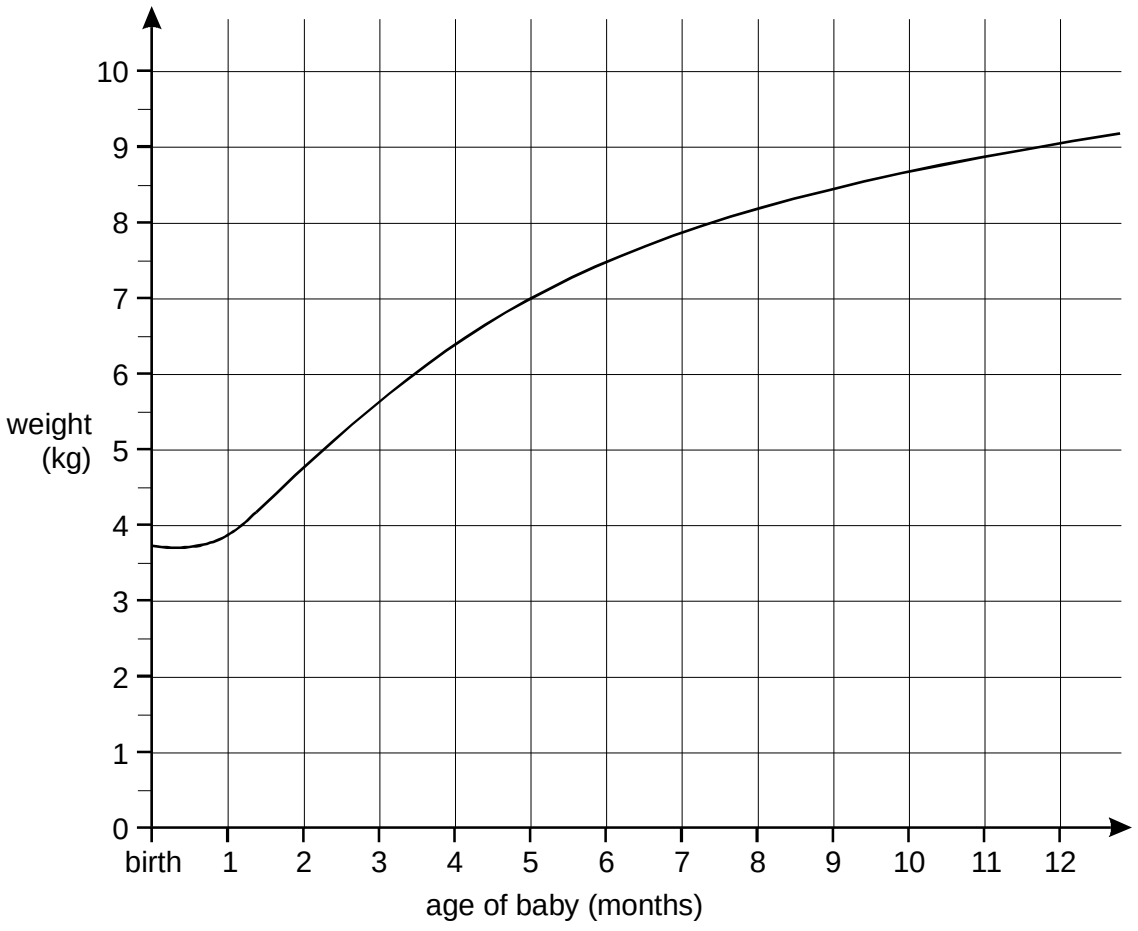


What is the correct time?



1 mark

60. This graph shows how the weight of a baby changed over twelve months.



From the graph, what was the weight of the baby at **10 months?**

kg

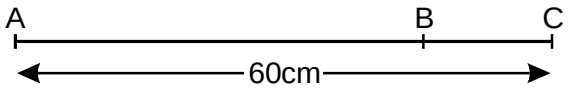
1 mark

How much **more** did the baby weigh at 5 months than at birth?

kg

1 mark

61.



Not drawn to scale

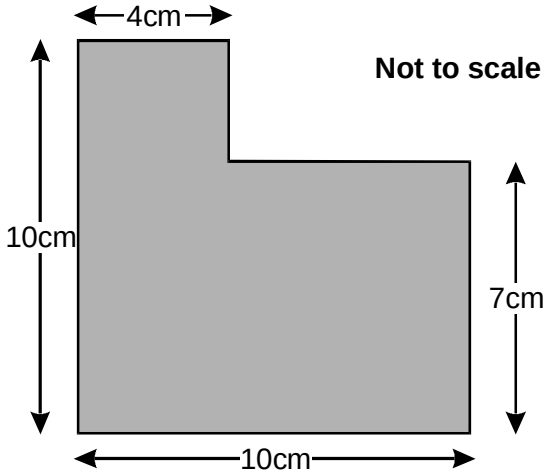
The distance from **A to B** is three times as far as from **B to C**.

The distance from **A to C** is **60 centimetres**.

Calculate the distance from **A to B**.

2 marks

62. What is the **area** of this shape?

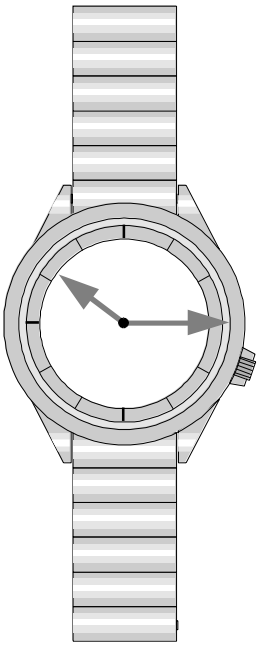


Show your **method.** You may get a mark.

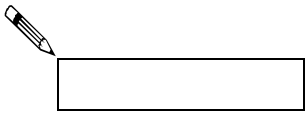
cm²

2 marks

63. This was the time on Selin's watch when she **set off** for a walk.

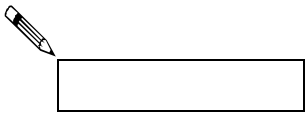


What time did the watch show 20 minutes **before** this?



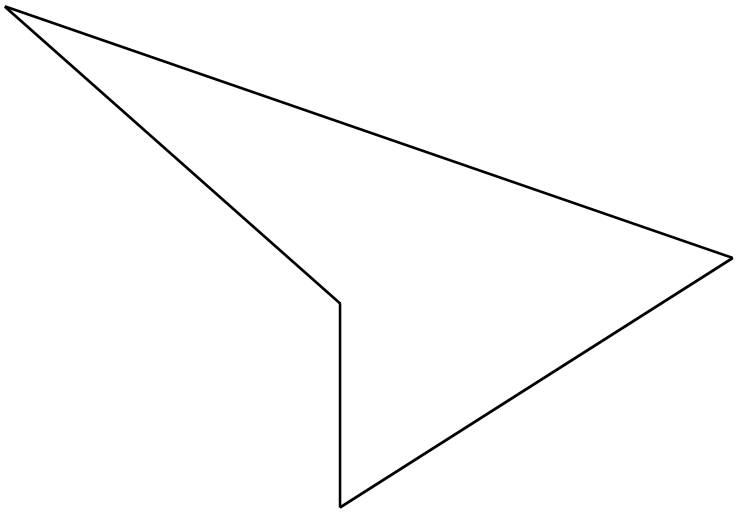
1 mark

What time did it show an hour and a half **after she set off** for the walk?



1 mark

64.



Measure accurately the **longest side** of this shape.

Give your answer in millimetres.

mm

1 mark

Measure accurately the **smallest angle** in the shape.

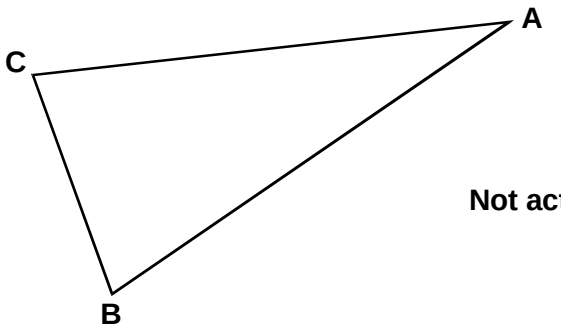
Use a protractor (angle measurer).

°

1 mark

65. Triangle **ABC** is isosceles and has a perimeter of 20 centimetres.

Sides **AB** and **AC** are each twice as long as **BC**.



Not actual size

Calculate the length of the side **BC**.

Do **not** use a ruler.

Show your **working.** You may get a mark.

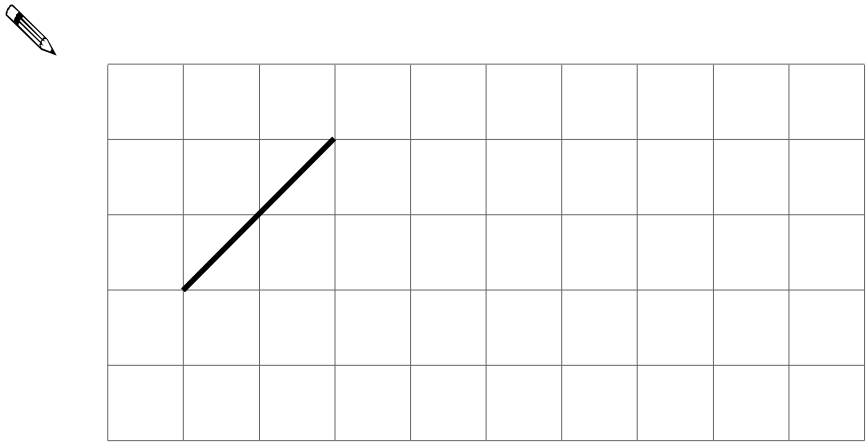
cm

2 marks

66. This is a centimetre grid.

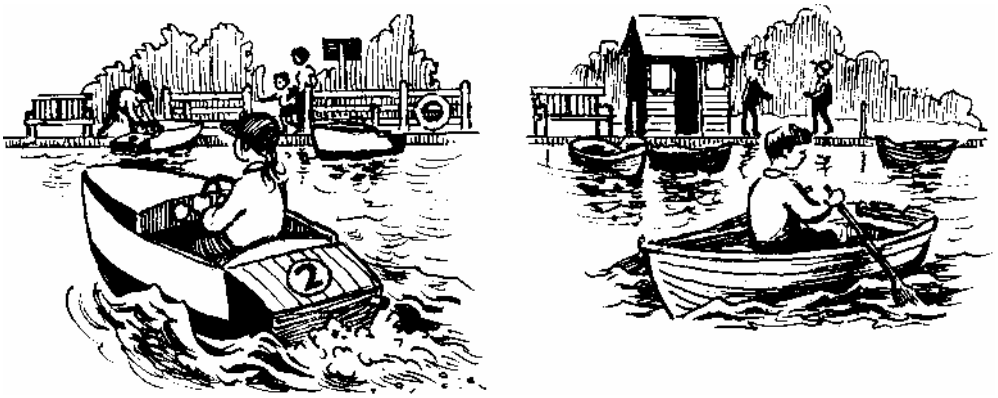
Draw **3 more lines** to make a **parallelogram** with an **area** of **10cm²**

Use a ruler.



1 mark

67.



Boat Hire	
Motor boats	**Rowing boats**
£1.50 for 15 minutes	£2.50 for 1 hour

How much does it cost to hire a **rowing boat** for three hours?

£ _____

1 mark

Sasha pays **£3.00** to hire a **motor boat**.

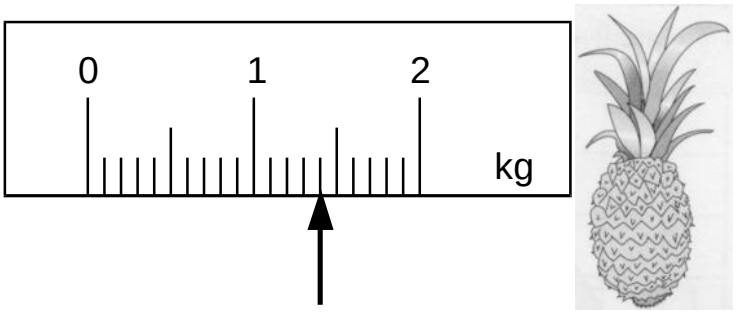
She goes out at **3:20 pm**.

By what time must she **return**?

_____ **pm**

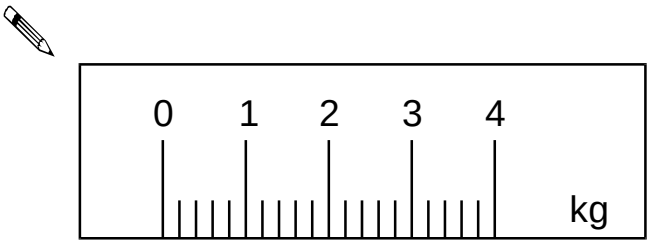
1 mark

68. On this scale, the arrow (↑) shows the weight of this pineapple.



Here is a **different** scale.

Mark with an arrow (↑) the weight of the **same** pineapple.



1 mark

69. Here is a recipe for raspberry ice cream.

rasberry ice cream for 8 people
$\frac{1}{2}$ litre of cream
1kg rasberries
250g sugar

This recipe is for **8 people**.

Josie makes enough raspberry ice cream for **12 people**.

How much **cream** does she use?

litre

1 mark

Fred makes raspberry ice cream in the same way.

He uses **2½ kg** of **raspberries**.

How much **sugar** does he use?

Show your **method.** You may get a mark.

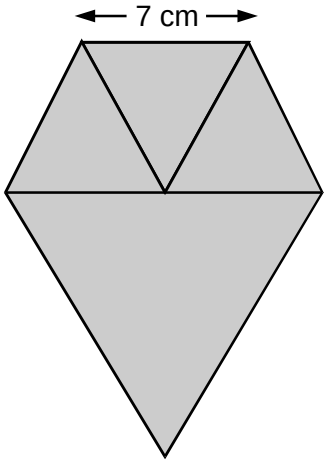
g

2 marks

70. Lauren has **three small equilateral triangles** and **one large equilateral triangle**.

The small triangles have sides of **7 centimetres**.

Lauren makes this shape.



Not actual size

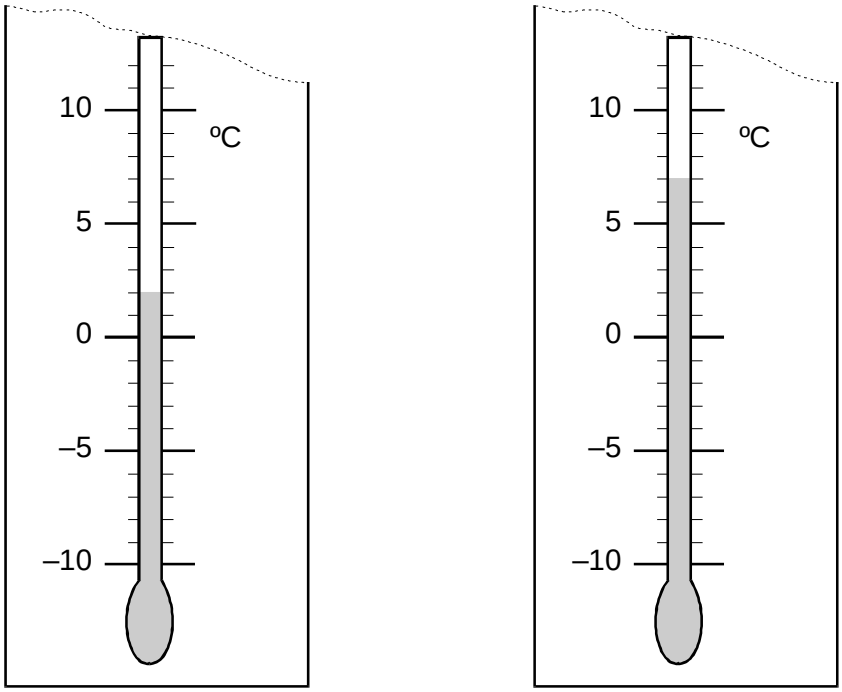
Calculate the **perimeter** of the shape.

Do **not** use a ruler.

cm

1 mark

71. These are the temperatures in York and Rome on a day in winter.



How may degrees **colder** is it in York than in **Rome**?

°C

1 mark

On another day, the temperature in York is **4°C**

Rome is **7 degrees colder** than York.

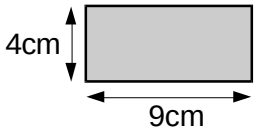
What is the temperature in **Rome**?

°C

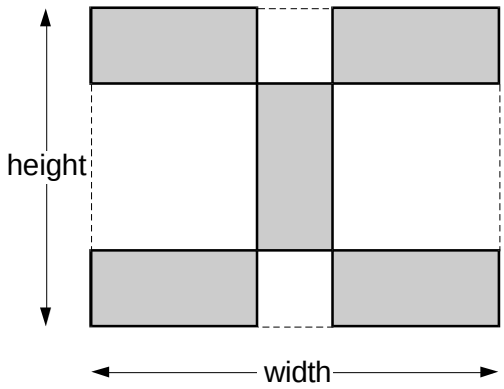
1 mark

72. Kim has some rectangular tiles.

Each one is **4 centimetres** by **9 centimetres**.



She makes a design with them.

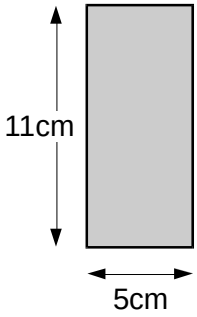


Calculate the **width** and **height** of her design.

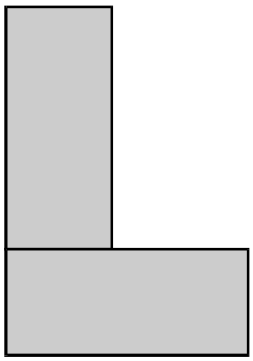
width = cm height = cm

2 marks

73. Liam has two rectangular tiles like this.



He makes this L shape.



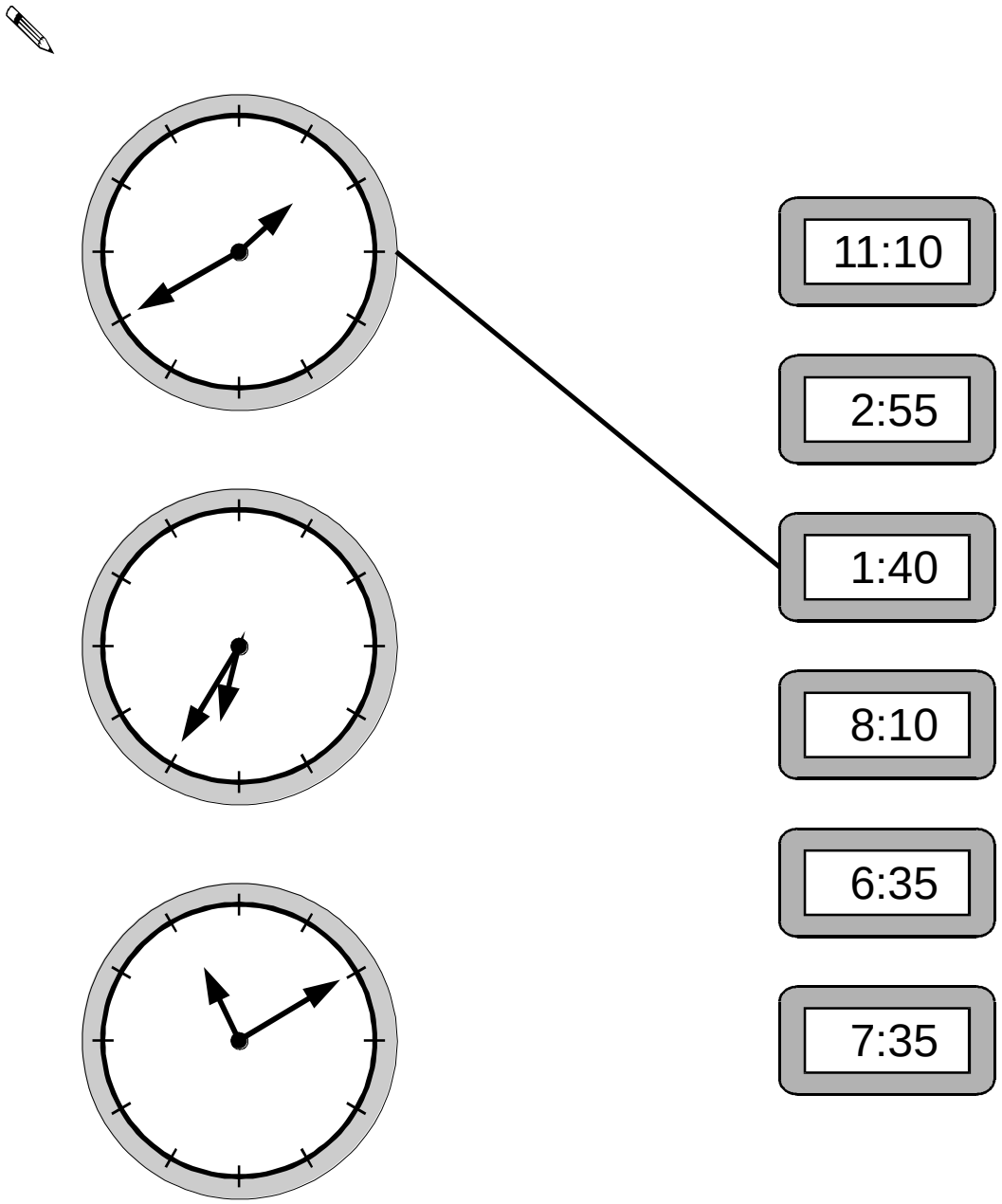
What is the **perimeter** of Liam's L shape?

cm

1 mark

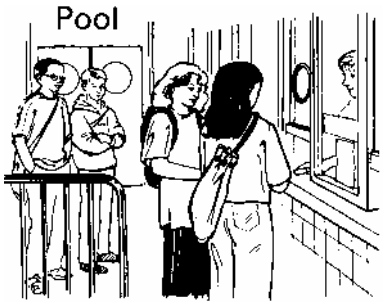
74. Here are three clock faces.

Match each clock face to the same time on a digital clock.



2 marks

75.



These are the opening times at a swimming pool.

	opening times		
	am		pm
Monday	Pool closed		
Tuesday			
Wednesday	10:30	to	5:30
Thursday	10:30	to	8:30
Friday	10:30	to	9:00
Saturday	8:00	to	6:00
Sunday	7:00	to	4:00

How many **hours** is the pool open on a **Sunday?**

hours

1 mark

Which **day** has the **latest** closing time?

.....

1 mark

Habib arrives at the pool at **5:20pm** on **Saturday.**

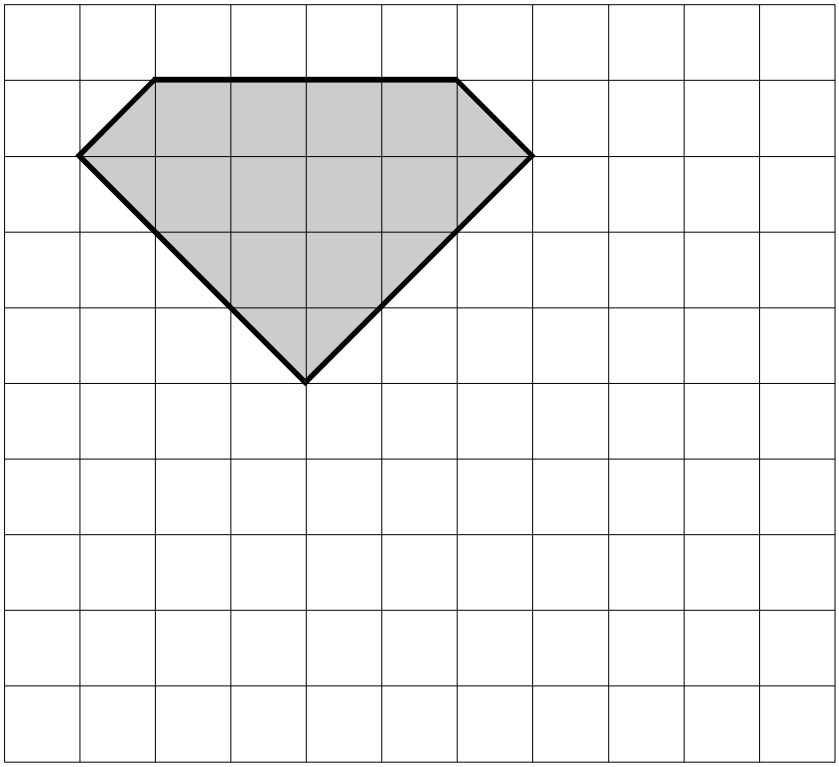
How many **minutes** is it before the pool closes?

minutes

1 mark

76. On the grid, draw a **rectangle** which has the **same area** as this shaded pentagon.

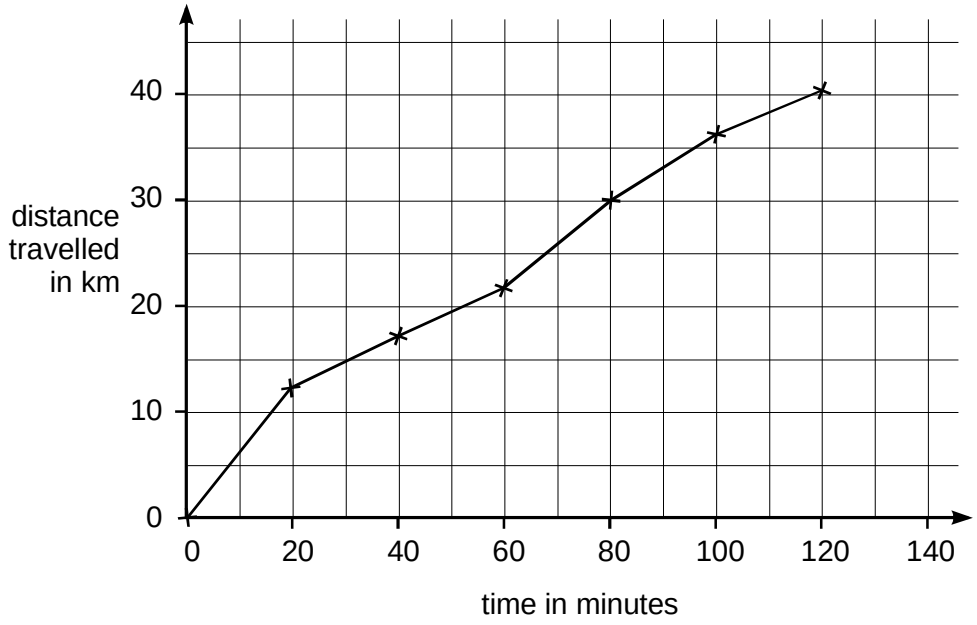
Use a ruler.



1 mark

77. Carol went on a **40-kilometre** cycle ride.

This is a graph of how far she had gone at different times.



How many minutes did Carol take to travel the **last 10 kilometres** of the ride?

minutes

1 mark

Use the graph to estimate the distance travelled in the **first 20 minutes** of the ride.

km

1 mark

Carol says,

'I travelled further in the first hour then in the second hour'.

Explain how the graph shows this.

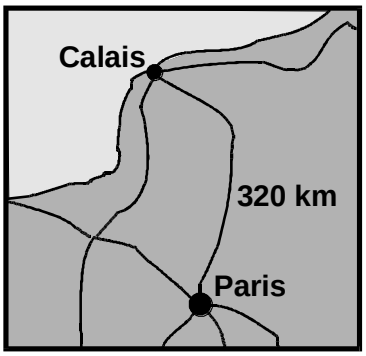
. .....

.....

.....

1 mark

78. Here is a map of part of France.



The map shows that the distance from Calais to Paris is **320 kilometres.**

5 miles is approximately **8 kilometres.**

Use these facts to calculate the approximate distance in **miles** from Calais to Paris.

Show your **method.** You may get a mark.

miles

2 marks

Samira bought this present in France.

44.85 FF

She paid **44.85 French Francs** for it.

9.75 French Francs equal **£1**

What was the cost of the present in **pounds and pence?**

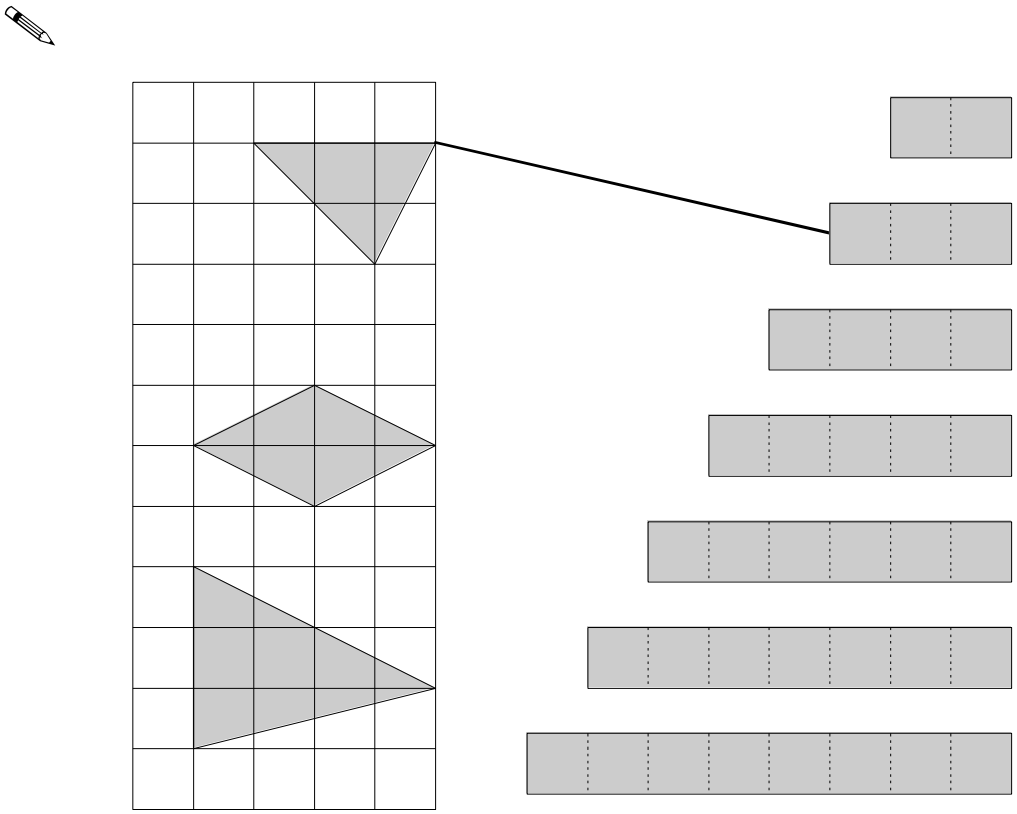
Show your **method.** You may get a mark.

£

2 marks

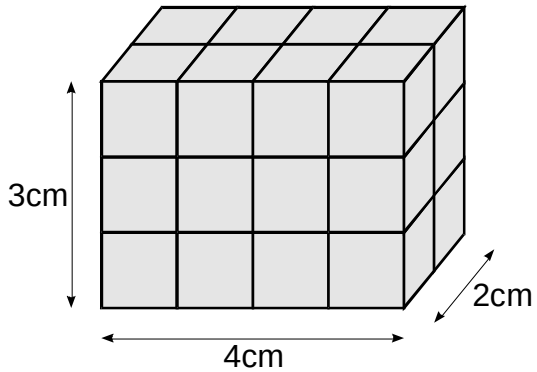
79. Draw **one line** from each shape to the rectangle which has the **same area**.

One is done for you.



2 marks

80. This cuboid is made from centimetre cubes.



It is 4 centimetres by 3 centimetres by 2 centimetres.

What is the **volume** of the cuboid?

cm^3

1 mark

Another cuboid is made from centimere cubes.

It has a volume of **30 cubic centimetres**.

What could the **length**, **height** and **width** be?

length **cm**

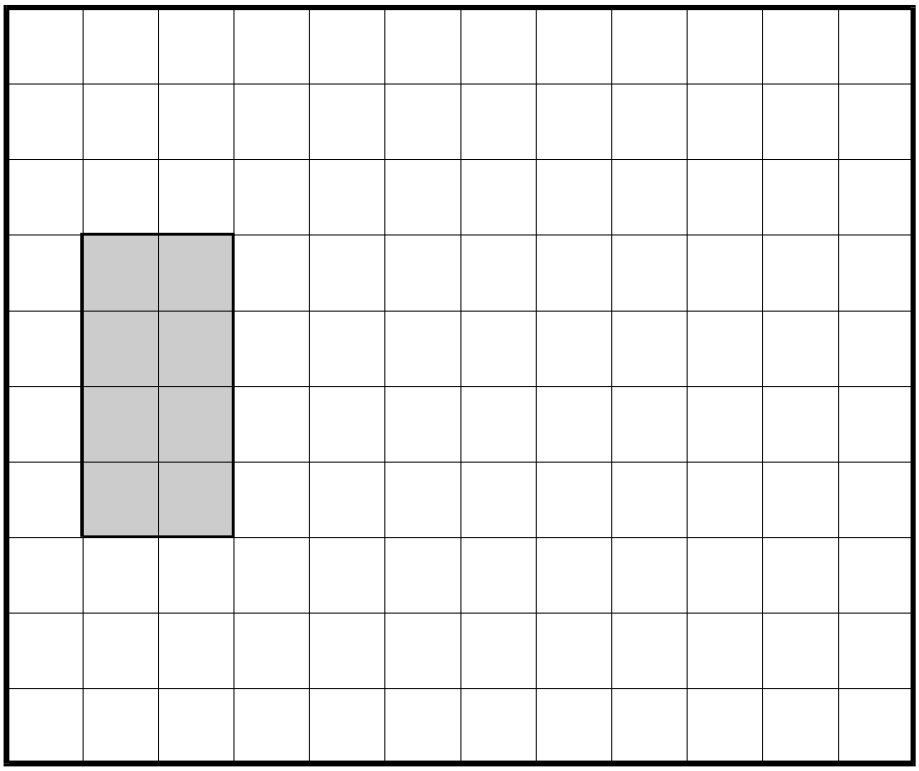
height **cm**

width **cm**

1 mark

81. On the grid draw a **triangle** with the **same area** as the shaded rectangle.

Use a ruler.



1 mark

82. Here is the calendar for August 1998.

August 1998

Sun	Mon	Tues	Wed	Thur	Fri	Sat
						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	**31**					

Simon's birthday is on **August 20th**.

In 1998 he had a party on the **Sunday after** his birthday.

What was the **date** of his party?

1 mark

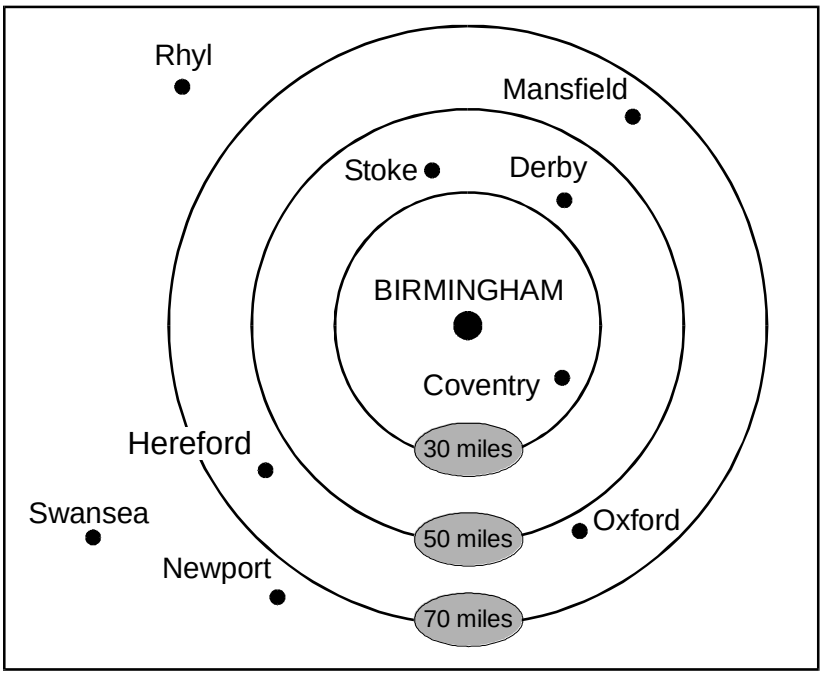
Tina's birthday is on **September 9th**.

On what **day of the week** was her birthday in 1998?

.....

1 mark

83. This diagram shows the distances of different towns from Birmingham.



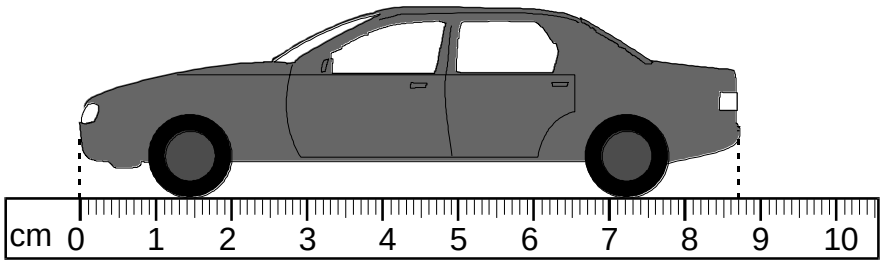
Write the name of a town which is **between 30 and 50 miles** from Birmingham.

..... 1 mark

Use the diagram to estimate the distance in **miles** from **Birmingham** to **Mansfield**.

miles 1 mark

84. Here is a drawing of a model car.



What is the **length** of the model?

Give your answer in **centimetres**, correct to one decimal place.

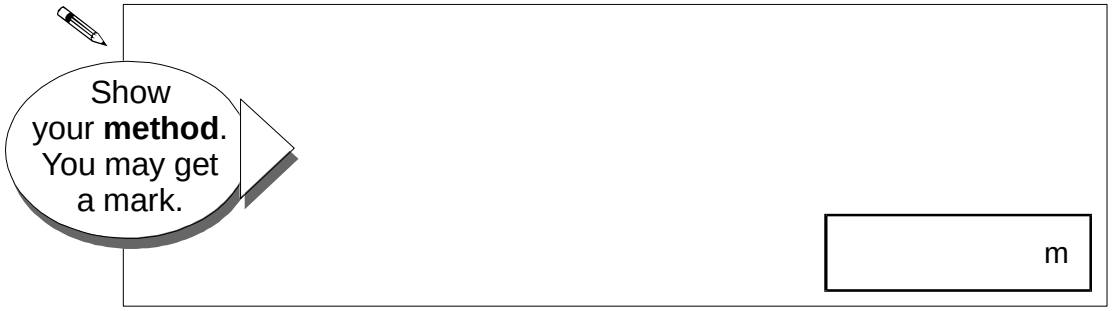
cm 1 mark

The height of the model is **2.8 centimetres**.

The height of the real car is **50** times the height of the model.

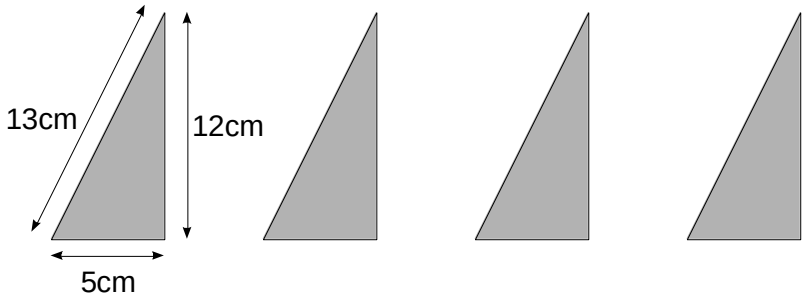
What is the **height** of the **real car**?

Give your answer in **metres**.

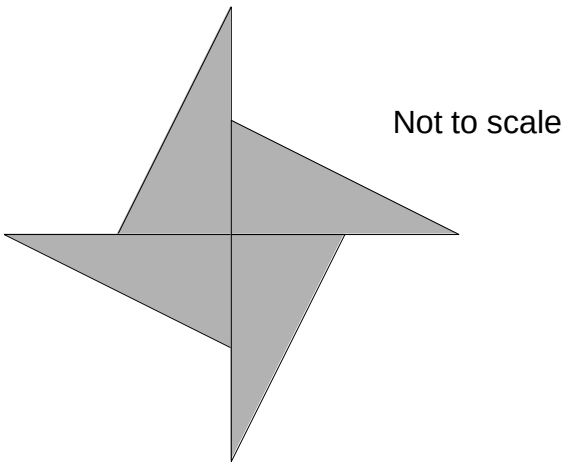


2 marks

85. Lindy has 4 triangles, all the same size.



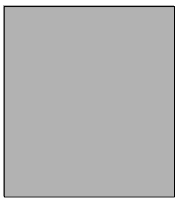
She uses them to make a star.



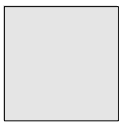
Calculate the **perimeter** of the star.

2 marks

86. Mr Jones has two sizes of square paving stones.

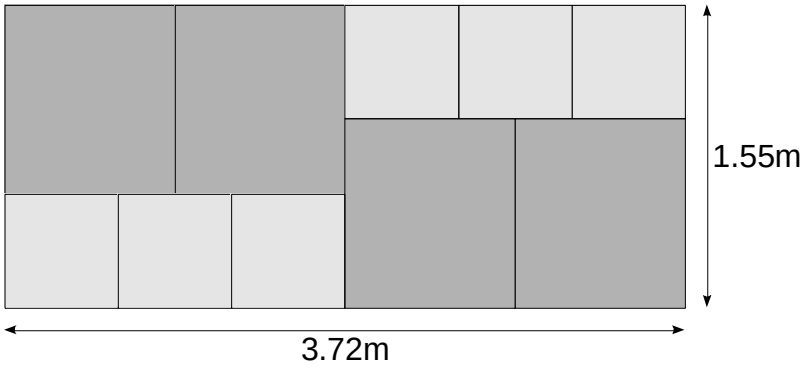


large



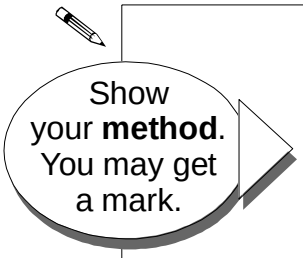
small

He uses them to make a path.



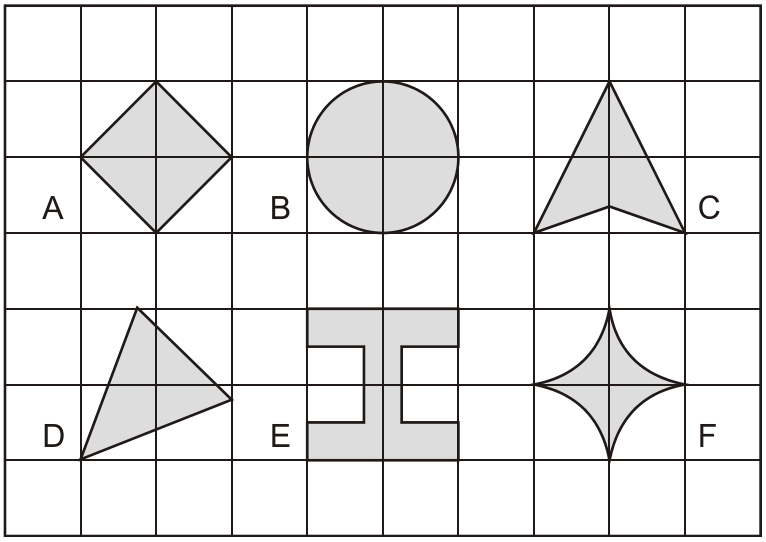
The path measures **1.55 metres** by **3.72 metres**.

Calculate the **width** of a **small paving stone**.



2 marks

87. Here are some shapes on a grid.



Which shape has the **longest perimeter**?

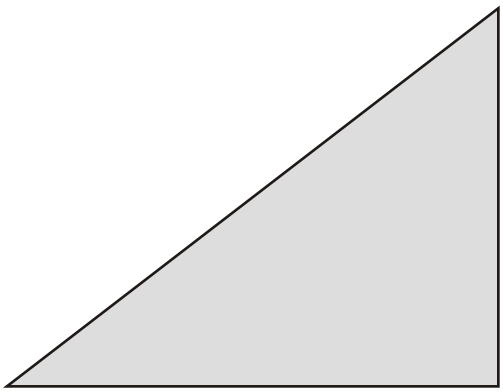
1 mark

Which shape has the **largest area**?

1 mark

88. Measure **accurately** the **longest side** of this triangle.

Give your answer in **millimetres**.

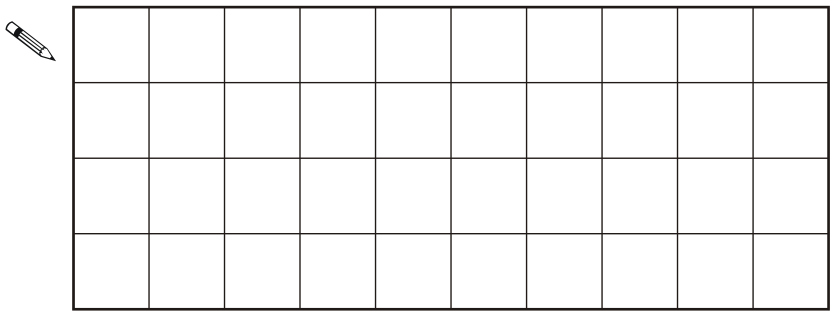


mm

1 mark

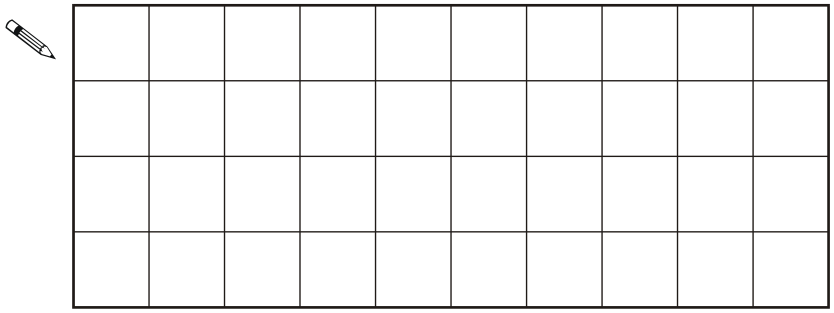
89. Here is a centimetre square grid.

On the grid draw a **shape** which has an **area** of **10** square centimetres.



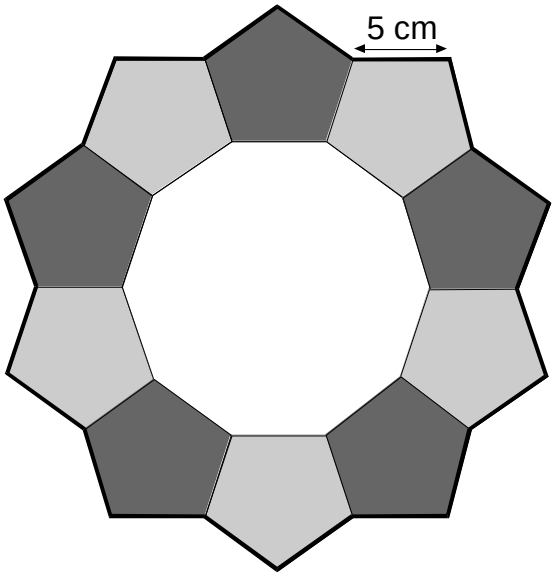
1 mark

On the grid below draw a **rectangle** which has a **perimeter** of **10** centimetres.



1 mark

90. This ring is made of **regular pentagons,** with sides of **5 centimetres.**



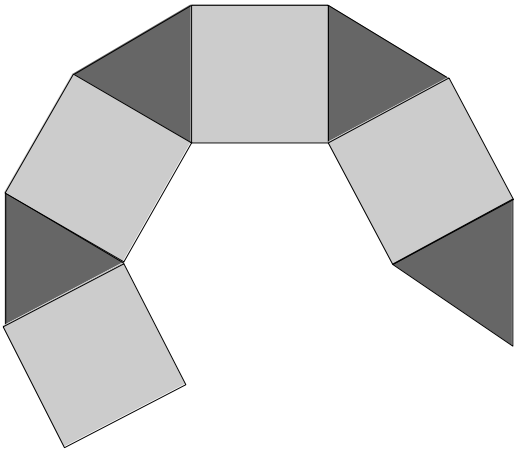
What is the **length** of the **outer edge** of the ring?

cm

1 mark

Here is part of a new ring.

It is made of **squares** and **triangles.**



The pattern is continued to complete the ring.

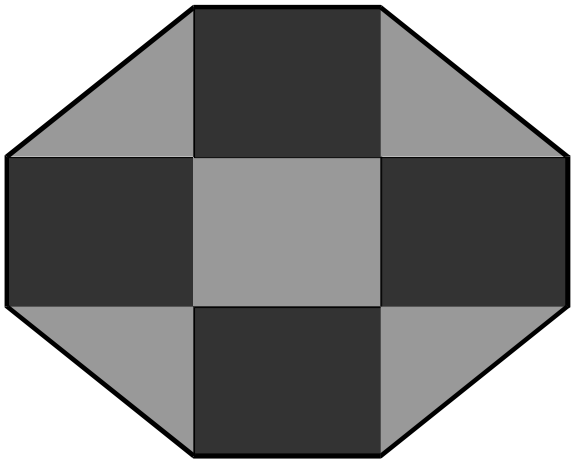
What is the **total** number of **squares** used in the complete ring?

1 mark

91. This plan of a garden is made of rectangles and triangles.

The area of each **rectangle** is **12 square metres.**

What is the **area** of the **whole garden**?

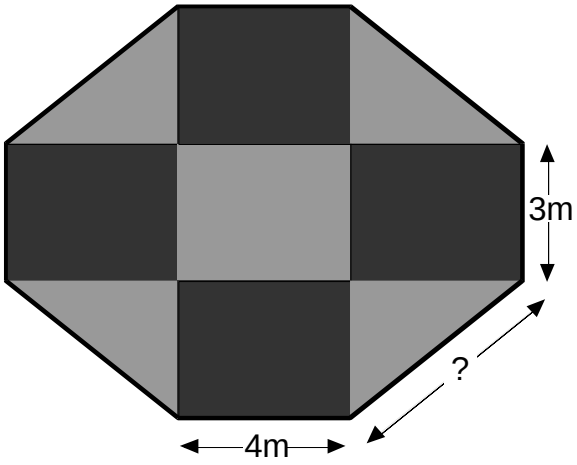


m^2

1 mark

The **perimeter** of the garden is **34 metres**.

What is the length of the **longest side** of each triangle?

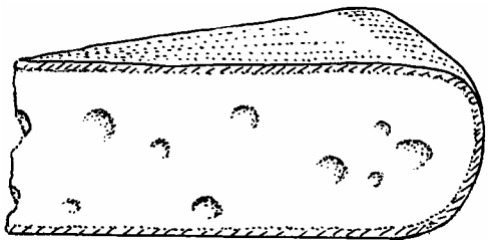


Show your **working**. You may get a mark

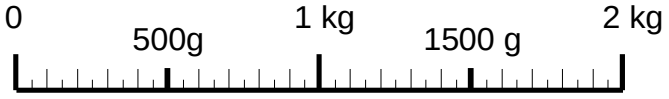
m

2 marks

92. This piece of cheese has a mass of **350 grams.**

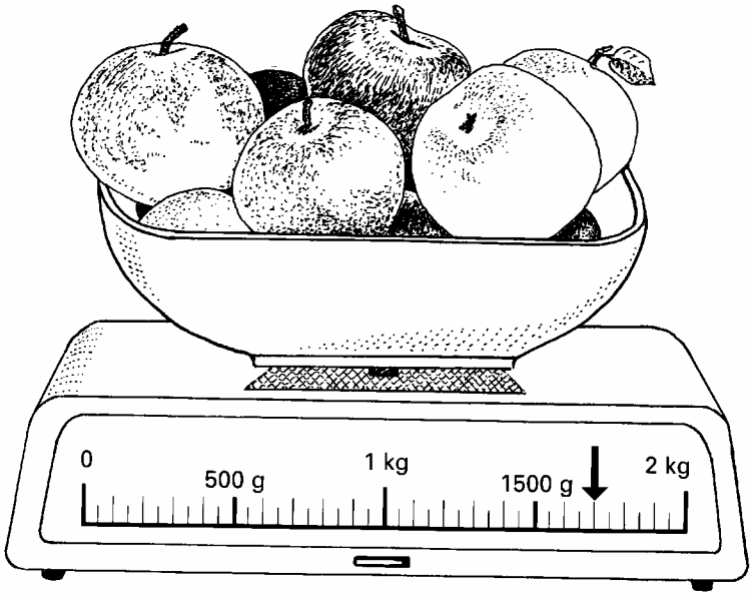


Mark an **arrow** (↓) on the scale to show the reading for **350 g.**



1 mark

Here are some apples.

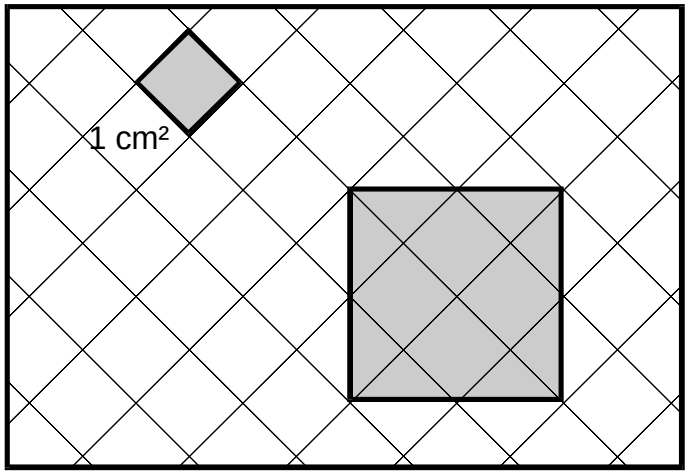


What is the **total mass** of these apples?

1 mark

93. The **area** of the **small** shaded square is **1 square centimetre.**

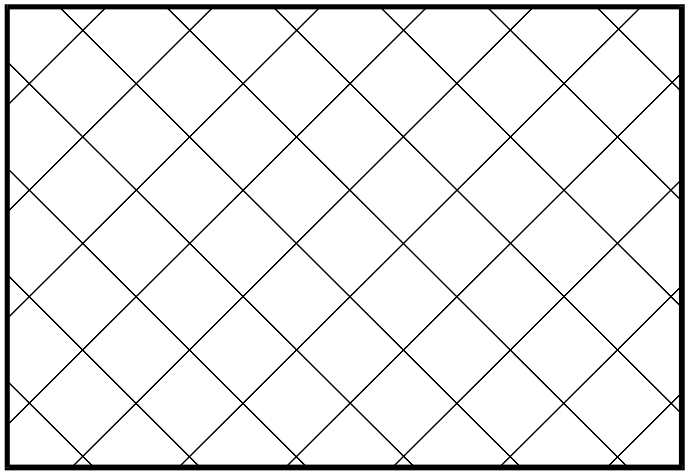
What is the **area** of the **larger** shaded square?



cm²

1 mark

On the grid below, draw a **square** with an **area** of **2 cm²**.



1 mark