1st Class Maths

Video Solutions

SCAN ME

PRACTICE PAPER FOR

AQA Paper 2F (June 2025)

Disclaimer

This paper has been created based on the **most common** paper 2/3 topics from previous years and also careful analysis of what topics have already appeared in paper 1. The paper should be excellent at helping students revise for exams, however should not be relied upon as the basis for revision. The topics from this paper may well appear in the real exams, however there is absolutely no guarantee of this. Some topics may appear, some may not. Anybody giving you any sort of guarantee is misleading you. If any topics or questions from this paper do come up, this is just lucky guessing and nothing more. ☺

Ultimately the best way to prepare for the exams is to **revise all topics**.

You can find a link to this paper and many more completely free resources at www.1stclassmaths.com

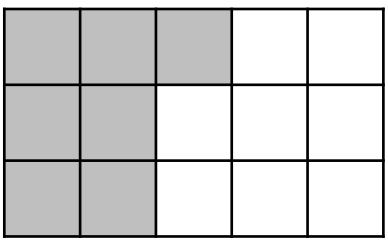
Do not write outside the box

Answer **all** questions in the spaces provided.

1 Write down the value of the digit 9 in 7294 **[1 mark]**

Answer _____

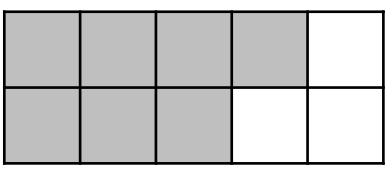
2 (a) Here is a centimetre grid.



What fraction of the grid is shaded? **[1 mark]**

Answer _____

2 (b) Here is another centimetre grid.



What percentage of the grid is shaded? **[1 mark]**

Answer _____ %

Do not write outside the box

3 Complete the table **[3 marks]**

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
		7%
$\frac{1}{4}$		

4 (a) Simplify $5 + 3 + m + m$ **[1 mark]**

Answer _____

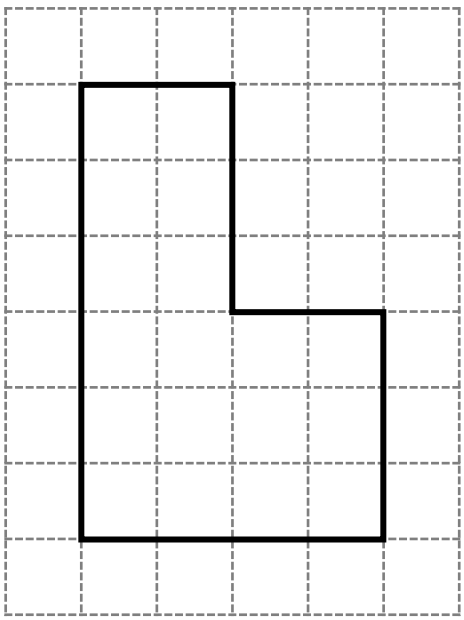
4 (b) Simplify $5 \times 3 \times m \times m$ **[1 mark]**

Answer _____

8

Do not write outside the box

5 A shape is drawn on a centimetre grid.



5 (a) Write down the area of the shape. **[1 mark]**

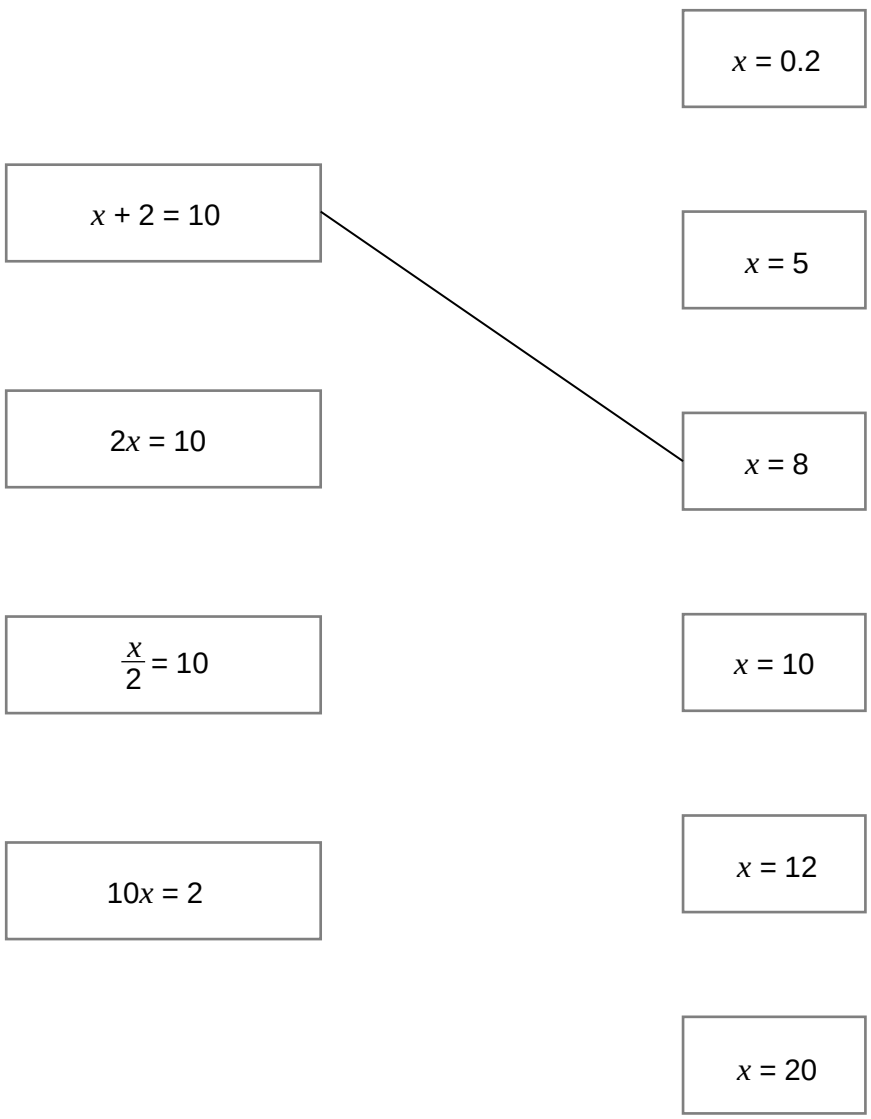
Answer _____ cm^2

5 (b) Work out the perimeter of the shape. **[2 marks]**

Answer _____ cm

Do not write outside the box

6 Match each equation on the left with a solution on the right.
One has been done for you. **[3 marks]**



6

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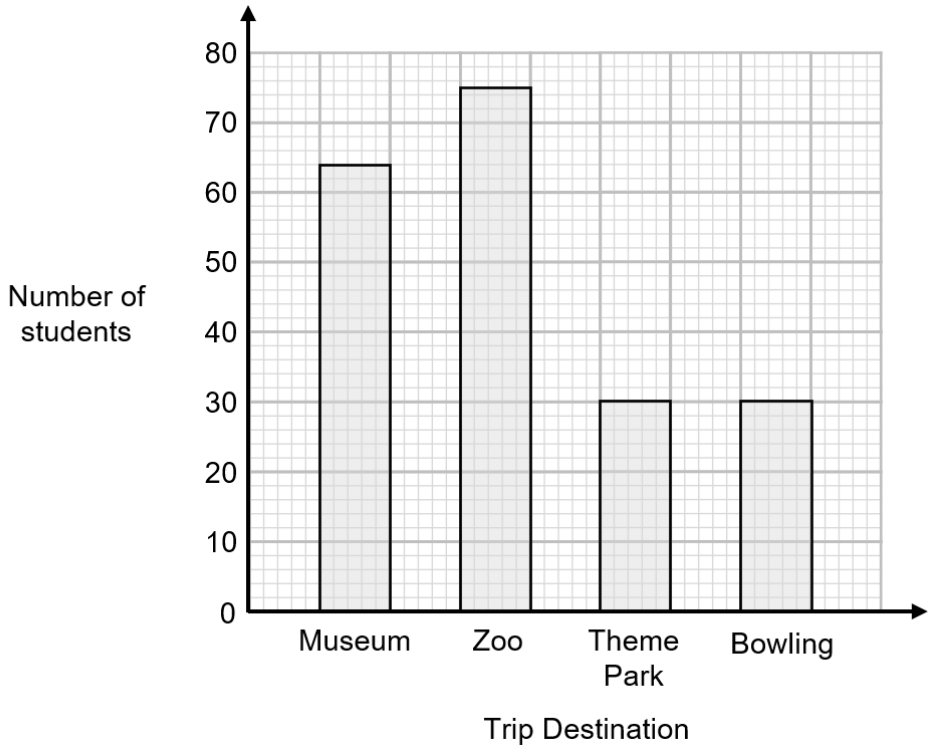
7 The bar chart below shows information about where students went to go for a school trip.



7 (a) Write down the number of students who went to the museum. **[1 mark]**

Answer _____

7 (b) Write down the modal trip destination. **[1 mark]**

Answer _____

Do not write outside the box

7 (c) 9 of the students who went bowling were from Mrs Patel's class.
8 of the students who went bowling were from Mrs Chapman's class.
The rest of the students who went bowling were from Mrs Lane's class.

One of the students on the bowling trip is selected at random.

Which teacher's class are they most likely to be from?

Tick **one** box and give a reason for your answer. **[2 marks]**

☐ Mrs Patel's class

☐ Mrs Chapman's class

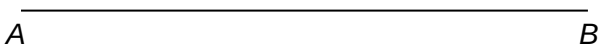
☐ Mrs Lane's class

Reason _____

_____

_____

8



Measure the length of line *AB*.
Give your answer in millimetres. **[1 mark]**

Answer _____ mm

5

Turn over ►

Do not write outside the box

9 The table below shows bowling scores for a family.

Player	**Lois**	**Hal**	**Reese**	**Malcolm**	**Dewey**
Score	110	230	140	132	110

9 (a) Write down the name of the family member with the median score. **[1 mark]**

Answer _____

9 (b) Work out the range of the scores. **[1 mark]**

Answer _____

10 A bag contains only blue and red counters.

number of blue counters : number of red counters = 1 : 4

10 (a) Write down the fraction of the counters in the bag that are red. **[1 mark]**

Answer _____

10 (b) Write down the percentage of the counters in the bag that are blue. **[1 mark]**

Answer _____ %

Do not write outside the box

11 6 countries take part of a football competition.

Group A	Group B
Romania (R)	Denmark (D)
Ukraine (U)	Moldova (M)
Norway (N)	Croatia (C)

One country from group **A** will play one country from **group B** in the final match.

List all the possible pairs of teams that could play in the final match.

The first one has been done for you.

[2 marks]

R D

6

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12 A livestreaming service has two payment options.

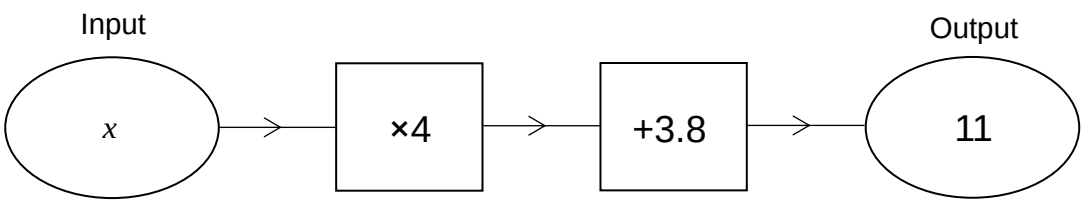
Pay Monthly	**Pay Annually**
£7.99 per month	£79.99 per year

Jasmin wants to pay for livestreaming for 1 year.

Work out how much money Jasmin will save by paying annually compared to paying monthly. **[3 marks]**

Answer £ _____

13 Here is a number machine.

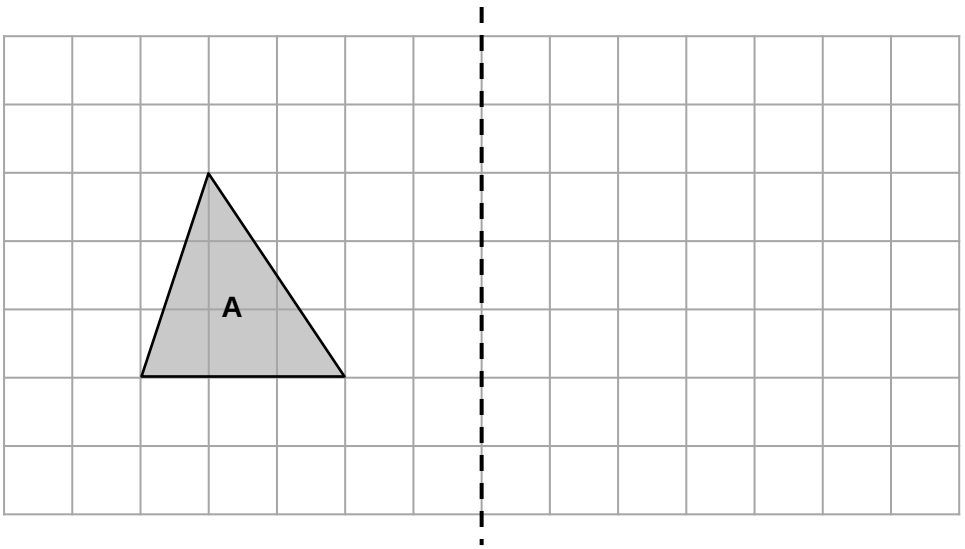


Work out the value of x. **[2 marks]**

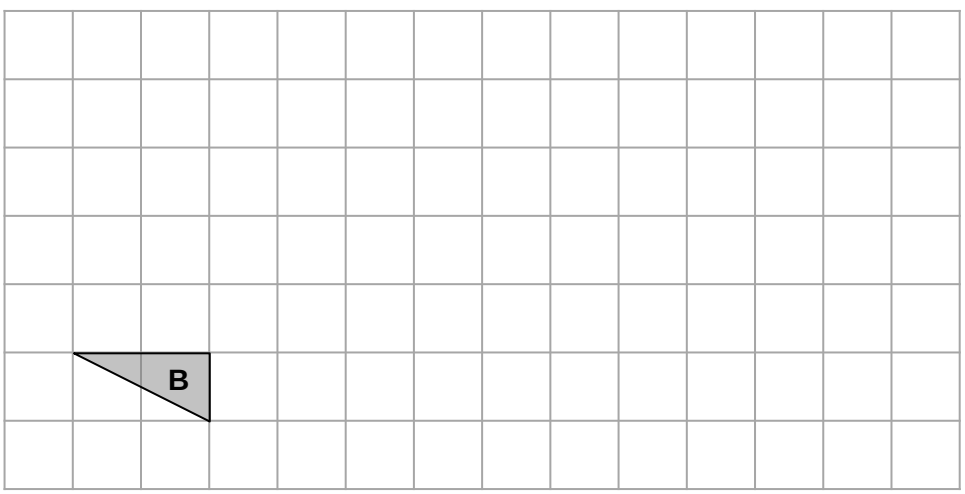
Answer _____

Do not write outside the box

14 (a) Reflect shape **A** in the mirror line. **[2 marks]**



14 (b) On the grid, draw an enlargement of shape **B** with scale factor 4. **[2 marks]**



9

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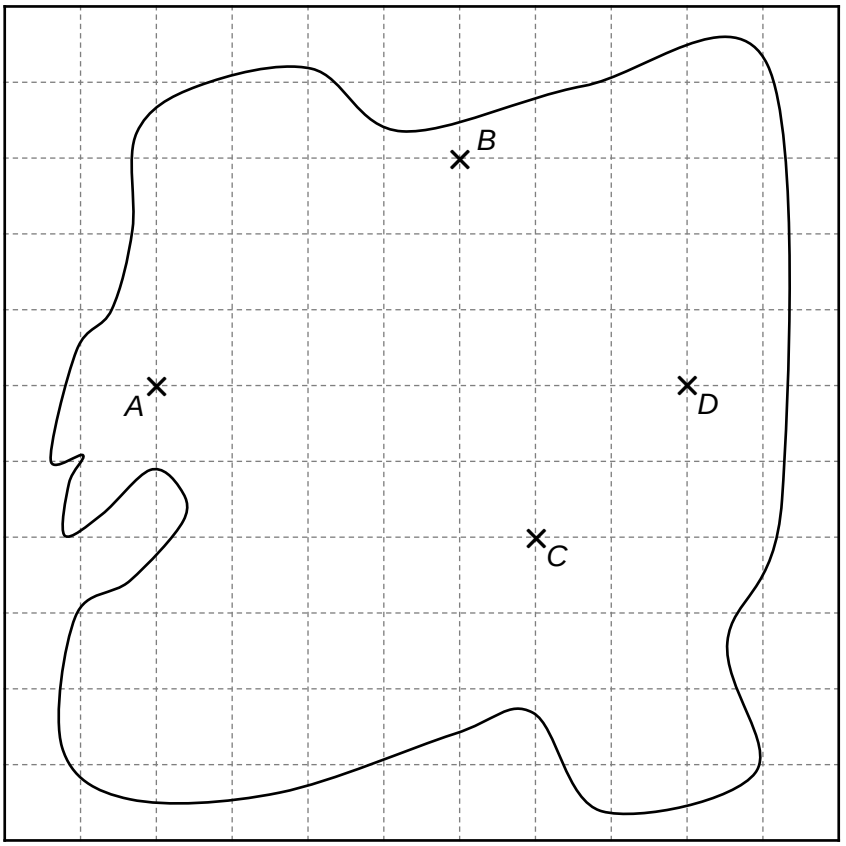
15 Here is a map of some towns on a square centimetre grid.

Scale: 1 cm represents 2.5 km



15 (a) Town *E* is at the midpoint of Town *A* and Town *B*.
Mark the location of Town *E* onto the map above. **[1 mark]**

15 (b) Write down the three-figure bearing of Town *D* from Town *C*. **[1 mark]**

Answer _____ °

Do not write outside the box

15 (c) Here is a set of instructions for how to get from Town *C* to Town *A*.

Start at Town *C*

Go North for 5 km

Go _____ for _____ km

You will arrive at Town *A*.

Complete the set of instructions. **[2 marks]**

4

Turn over ►

Do not write outside the box

16 The following formula is used to work out the cost of a party at a hotel.

Total Cost of Party = £5.50 × Number of Guests + £150 Venue Hire

16 (a) Isabelle wants to book a party for 50 guests.
Work out the total cost of the party. **[2 marks]**

Answer £ _____

16 (b) Ethan books a party with a total cost of £546
Work out how many guests Ethan's party has. **[2 marks]**

Answer _____ guests

Do not write outside the box

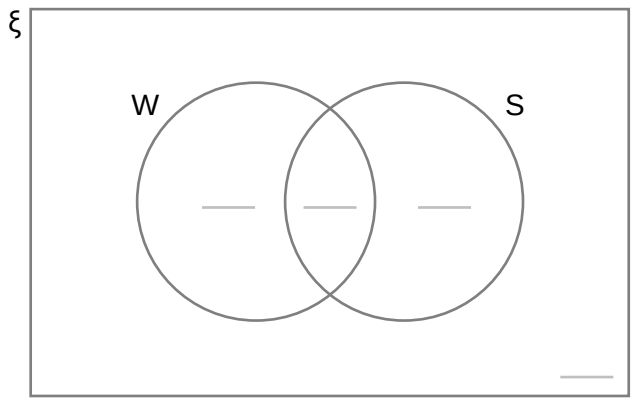
17 Here is some information about 60 insects collected by a biologist.

25 of the insects have wings and stripes.
70% of the insects have wings.

$\frac{1}{4}$ of the insects do not have wings or stripes.

17 (a) Complete the Venn diagram to represent the information. **[3 marks]**

ξ = 60 insects collected by a biologist.
W = insects with wings.
S = insects with stripes.



17 (b) One of the insects is chosen at random.

Write down the probability that the insect has wings and stripes. **[1 mark]**

Answer _____

8

Do not write outside the box

18 Michael has a paddling pool with a capacity of 600 litres.

He fills the pool with a hose at a rate of 225 millilitres per second.

Show that Michael will completely fill his paddling pool in less than $\frac{3}{4}$ hour.

[4 marks]

19 A linear sequence starts

40 49 58 67 …

Work out an expression for the nth term of the sequence. **[2 marks]**

Answer _____

Do not write outside the box

20 Robin plays a game where he must hit a target with a dart.

20 (a) On Monday, Robin throws a dart at the target 10 times.
6 of his throws hit the target and the rest miss.

Write down Robin's relative frequency for hitting the target on Monday. **[1 mark]**

Answer _____

20 (b) On Tuesday, Robin throws a dart at the target 40 times.
27 of these 40 throws hit the target and the rest miss.

Write down Robin's relative frequency for hitting the target for all of his throws on both Monday and Tuesday. **[1 mark]**

Answer _____

20 (c) Which of your previous answers is a better estimate for the probability that Robin will hit the target?

Tick **one** box and give a reason for your answer. **[1 mark]**

☐ The answer to part (a) is a better estimate

☐ The answer to part (b) is a better estimate

Reason _____

_____

_____

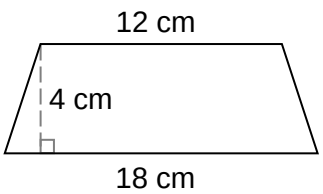
9

Do not write outside the box

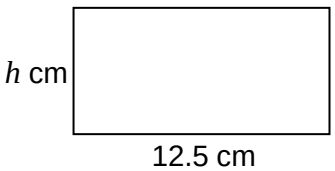
21 Here is a trapezium, a rectangle and a triangle.

Not drawn accurately

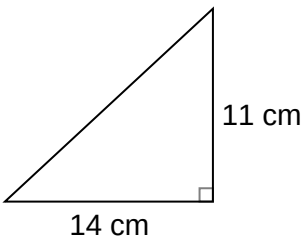
Trapezium



Rectangle



Triangle



The area of the trapezium is less than the area of the rectangle.
The area of the rectangle is less than the area of the triangle.

h, the height of the rectangle is an integer.
Work out two possible values for h.

[5 marks]

h = _____ and h = _____

Video Solutions

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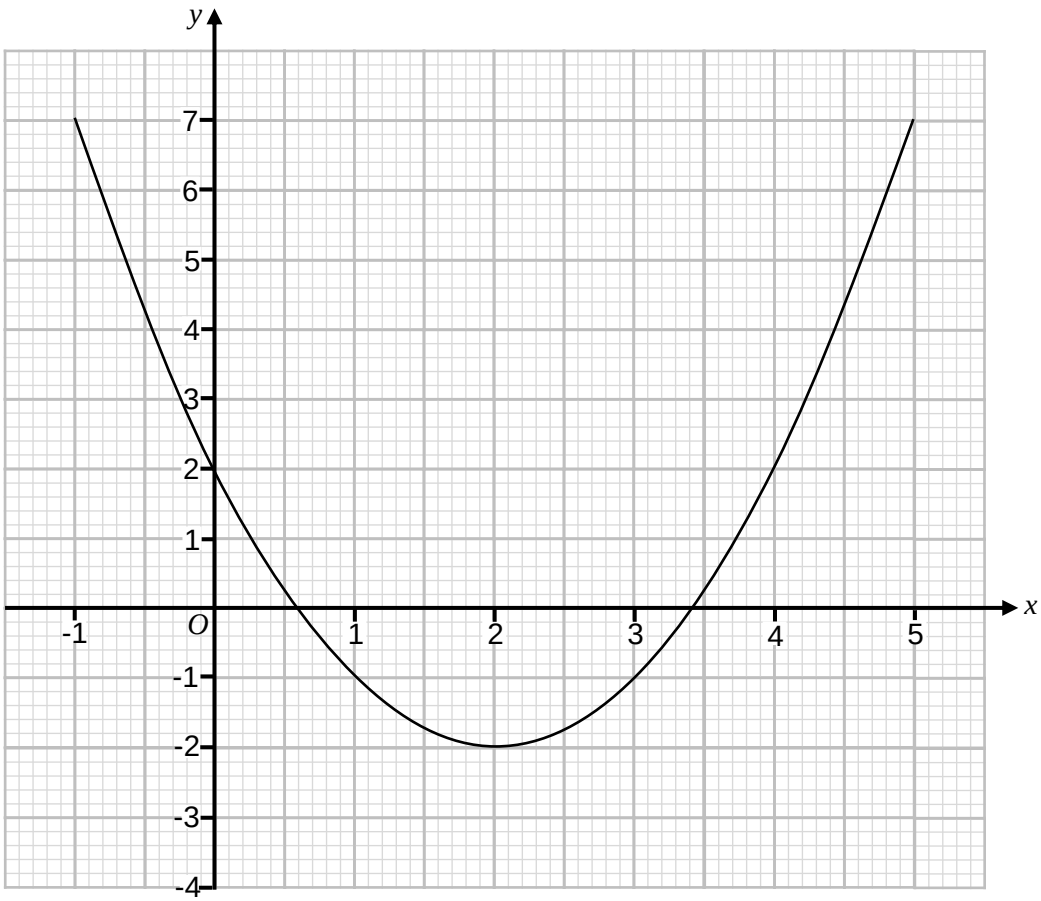
22 Here is the graph of $y = x^2 - 4x + 2$ for x values from -1 to 5



22 (a) Write down estimates for the roots of the equation $x^2 - 4x + 2 = 0$ **[2 marks]**

Answer _____ and _____

22 (b) Write down the equation of the line of symmetry of the graph. **[1 mark]**

Answer _____

8

Do not write outside the box

23 The table shows information about the reaction times R, in seconds, of some sprinters at an athletics club.

Reaction Time, R (seconds)	**Frequency**
$0.10 \leq R < 0.12$	4
$0.12 \leq R < 0.14$	22
$0.14 \leq R < 0.16$	13
$0.16 \leq R < 0.18$	21
$0.18 \leq R < 0.20$	20

23 (a) Write down the modal class. **[1 mark]**

Answer _____ $\leq R <$ _____

23 (b) Which interval contains the median?
You **must** show your working. **[2 marks]**

Answer _____ $\leq R <$ _____

23 (c) Work out the percentage of the sprinters at the athletics club that had a reaction time less than 0.14 seconds. **[2 marks]**

Answer _____ %

Do not write outside the box

24 Zara has £2500 to invest for 4 years.
She sees two different offers.

Offer 1	**Offer 2**
Simple Interest	Compound interest
6% per year	4.5% per year

Work out how much more interest Zara would receive by using **offer 1** compared to **offer 2**.

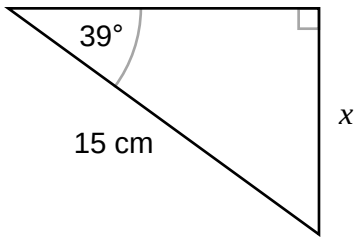
[4 marks]

Answer £ _____

9

Do not write outside the box

25 Here is a right-angled triangle.

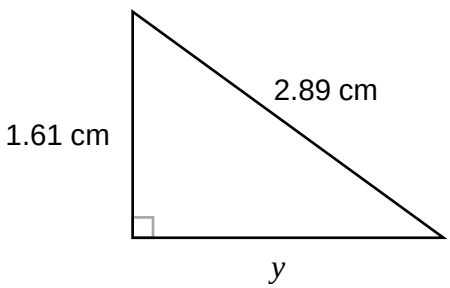


Not drawn accurately

Use trigonometry to work out the value of x. **[3 marks]**

Answer _____ cm

26 Here is a right-angled triangle.



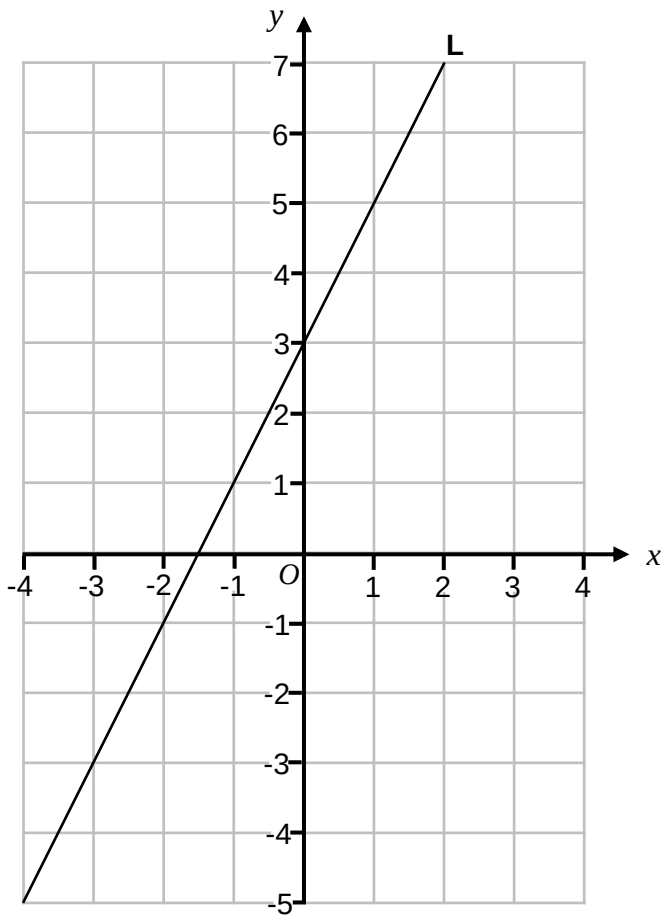
Not drawn accurately

Use Pythagoras' Theorem work out the value of y. **[2 marks]**

Answer _____ cm

Do not write outside the box

27 The lines **L** is shown on the grid.



Work out the equation of the line **L**.
Give your answer in the form $y = mx + c$ **[3 marks]**

Answer _____

END OF QUESTIONS

8