Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number	Candidate Number

Mathematics

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Foundation Tier

Predicted Paper 1F - 15th May 2025

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may be used where indicated, but not otherwise.**
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Disclaimer: No-one can ever be sure what will definitely appear on the GCSE Maths Papers. I have put this paper together based on common topics we often see on Paper 1. I hope you find it helpful!

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Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

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1 Change 20 centimetres into millimetres.

..... millimetres

(Total for Question 1 is 1 mark)

2 Write the following numbers in order of size.
Start with the smallest number.

20% 0.3 0.23 $\frac{1}{4}$

.....

(Total for Question 2 is 2 marks)

3 Work out $30 + 5 \times 2$

.....

(Total for Question 3 is 1 mark)

4 Write 5.28 correct to 1 decimal place.

.....

(Total for Question 4 is 1 mark)

5 Write down the value of the 5 in the number 7852

.....

(Total for Question 5 is 1 mark)

6 Here is a list of numbers.

5 12 15 27 29 40

VIDEO SOLUTIONS

From the list, write down

(a) a factor of 20

.....

(1)

(b) a prime number

.....

(1)

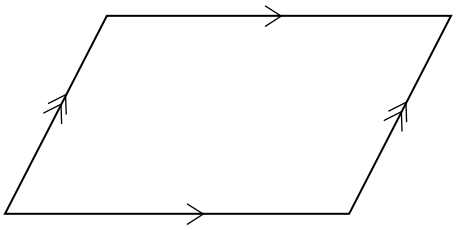
(c) a cube number

.....

(1)

(Total for Question 6 is 3 marks)

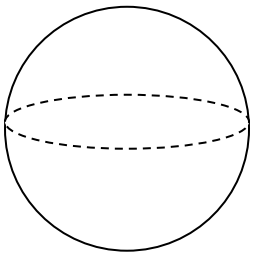
7 (a) Write down the mathematical name of this quadrilateral.



.....

(1)

(b) Write down the mathematical name of this 3-D shape.



.....

(1)

(Total for Question 7 is 2 marks)

8 (a) Simplify $2a \times 7b$

VIDEO SOLUTIONS

.....

(1)

(b) Simplify $4x - 2y + 3x - 8y - x$

.....

(2)

(c) Simplify $p^2 + p^2 + p^2$

.....

(1)

(Total for Question 8 is 4 marks)

---

9 The pictogram shows information about the number of bicycles sold in a shop on Monday and on Tuesday.

Monday	○ ◔
Tuesday	○ ◑
Wednesday	
Thursday	

Key:

○ represents 8 bicycles

Over the four days shown, the shop sold a total of 56 bicycles.

$\frac{2}{7}$ of these bikes were sold on Thursday.

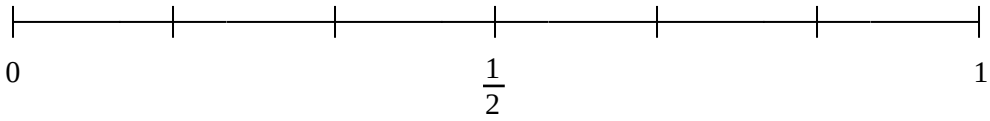
Use this information to complete the pictogram.

(Total for Question 9 is 3 marks)

10 An ordinary fair dice is thrown once.

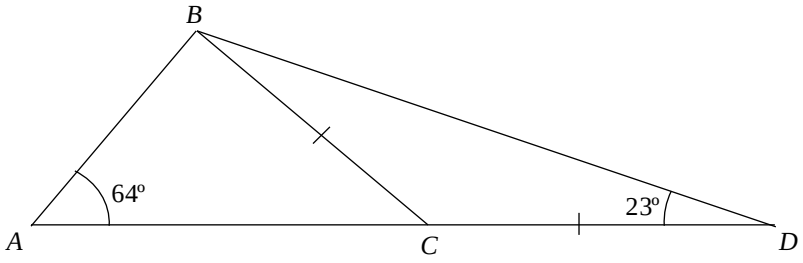
VIDEO SOLUTIONS

(a) On the probability scale, mark with a cross (×) the probability that the dice lands on a multiple of 2.



(Total for Question 10 is 1 mark)

11



ACD is a straight line

Work out the size of angle *ABC*

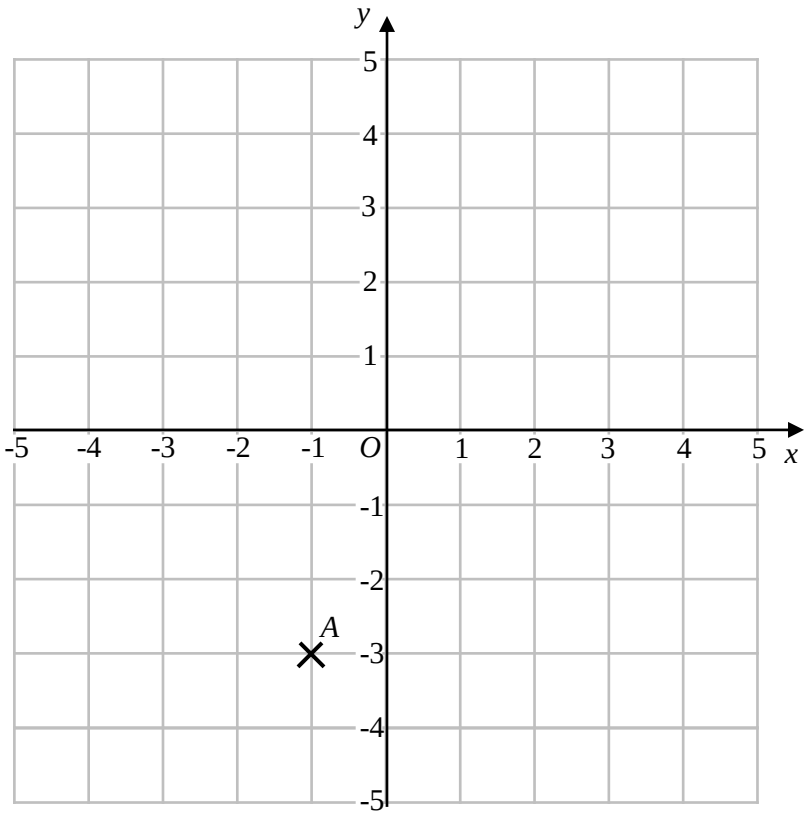
o

.....

(Total for Question 11 is 3 marks)

12

VIDEO SOLUTIONS



(a) Write down the coordinates of the point *A*.

(..... , ...)

(1)

(b) On the grid, mark with a cross (×) the point (2, 0)
Label this point B

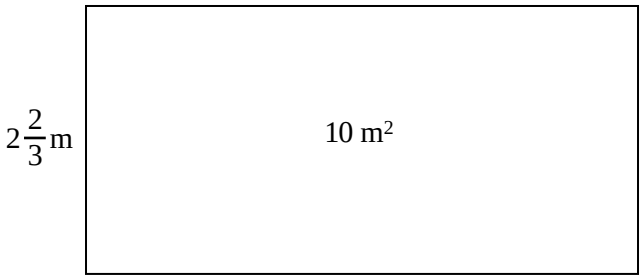
(1)

(c) On the grid, draw the line with equation $x = 3$

(1)

(Total for Question 12 is 3 marks)

13 A rectangle has an area of 10 m^2



Find the perimeter of the rectangle.

..... m

(Total for Question 13 is 4 marks)

14 (a) A stall sells tea, coffee and hot chocolate in the ratio 3 : 5 : 4
What fraction of the drinks sold were coffee?

.....

(2)

(b) Write 12 : 42 in the form 1 : *n*

.....

(2)

(Total for Question 14 is 4 marks)

15 Ben wants to buy 41 hats.
Each hat costs £5.90.

VIDEO SOLUTIONS

(a) Estimate the total amount of money Ben will need to buy all the hats.

£.....

(2)

(b) The cost of a hat increases by 20%
Using the exact value, calculate the new cost of a single hat.

£.....

(2)

(Total for Question 15 is 4 marks)

16 Here are the first five terms of an arithmetic sequence.

1, 8, 15, 22, 29

(a) Find an expression, in terms of n, for the nth term of this sequence.

.....

(2)

(b) Find the 12^{th} term in the sequence

.....

(1)

(Total for Question 16 is 3 marks)

17 180 students were asked if they prefer running or cycling

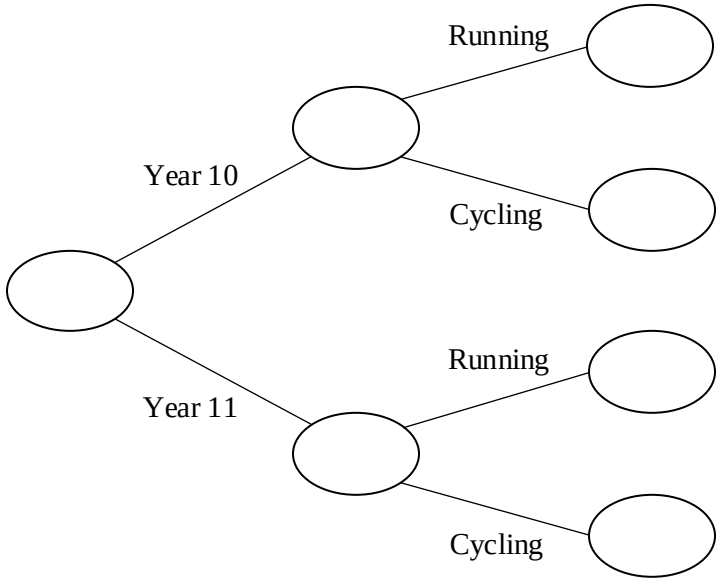
The students were all in Year 10 or Year 11.

The ratio of students in Year 10 to Year 11 was 4 : 5

55% of the students preferred cycling

$\frac{4}{5}$ of the Year 10 students preferred running

(a) Use this information to complete the frequency tree.



(4)

(b) One of the Year 10 students is chosen at random.
Write down the probability that this student preferred cycling.

.....

(2)

(Total for Question 17 is 6 marks)

18 Work out 7.18×3.6

VIDEO SOLUTIONS

.....

(Total for Question 18 is 3 marks)

19 Work out $15.12 \div 1.8$

.....

(Total for Question 19 is 3 marks)

20 (a) Write 153 as a product of its prime factors.
Give your answer in index form.

VIDEO SOLUTIONS

.....

(2)

(b) Find the lowest common multiple (LCM) of 102 and 153

.....

(2)

(Total for Question 20 is 4 marks)

21 It takes 5 workers 15 days to build a house extension.

VIDEO SOLUTIONS

(a) How long would it take 3 workers to build the same extension?

..... days

(2)

(b) State one assumption you made in working out your answer to part (a).

.....

.....

.....

(1)

(Total for Question 21 is 3 marks)

22 There are only pink cubes, grey cubes and white cubes in a box.

The table shows the probability of taking at random each colour of cube from the box.

Colour	pink	grey	white
Probability	x	y	y

$x : y = 2 : 1$

Work out the value of y.

$y =$ .....

(Total for Question 22 is 2 marks)

23 (a) Write 0.00209 in standard form.

VIDEO SOLUTIONS

.....

(b) Write 1.302×10^4 as an ordinary number.

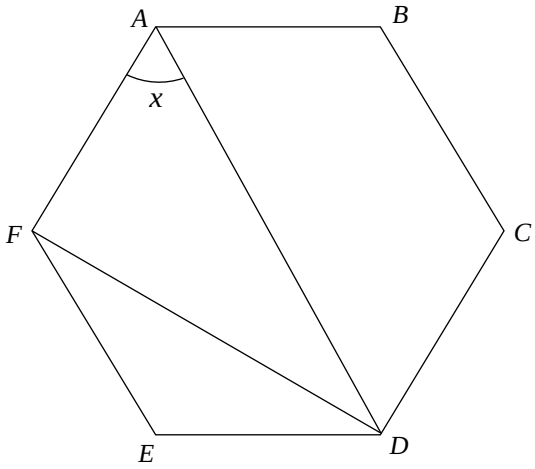
(1)

.....

(1)

(Total for Question 23 is 2 marks)

24



ABCDEF is a regular hexagon

Work out the size of angle *x*
You must show all your working.

°

.....

(Total for Question 24 is 2 marks)

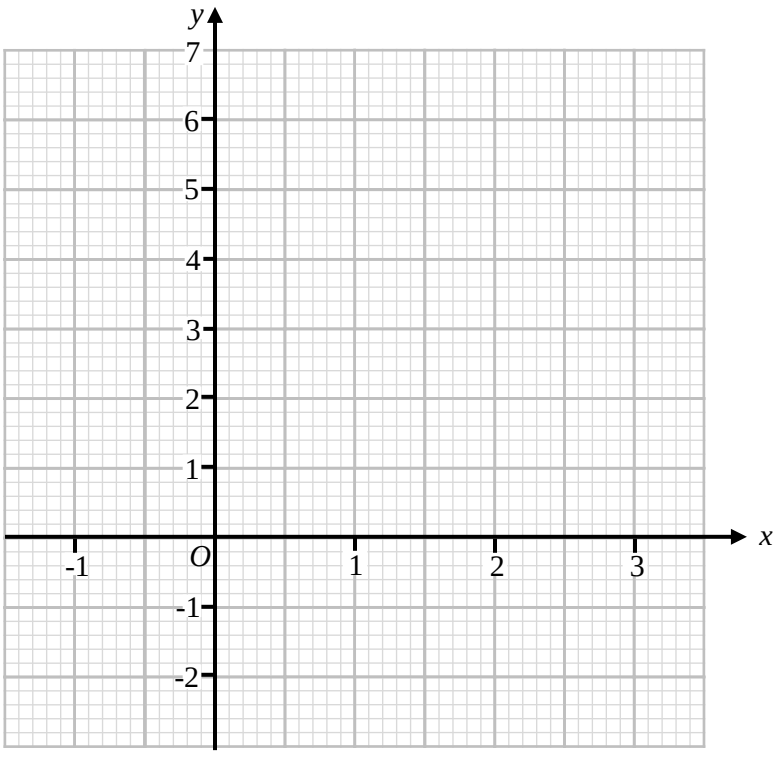
25 (a) Complete the table of values for $y = 5 - 2x$

VIDEO SOLUTIONS

x	-1	0	1	2	3
y					

(2)

(b) On the grid, draw the graph of $y = 5 - 2x$ for values of x from -1 to 3



(2)

(c) Give the equation of a line parallel to $y = 5 - 2x$

.....

(1)

(Total for Question 25 is 5 marks)

26 (a) Expand $x(2x - 5)$

VIDEO SOLUTIONS

.....

(1)

(b) Factorise fully $15k^2 - 21k$

.....

(2)

(c) Solve $4(y + 2) < 22$

.....

(2)

(Total for Question 26 is 5 marks)

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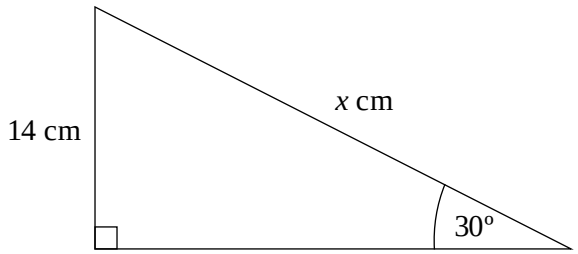
27 Alice travels 45 miles in 90 minutes.
What was Alice's average speed in miles per hour?

..... mph

(Total for Question 27 is 2 marks)

28



Work out the value of x.

.....

(Total for Question 28 is 3 marks)

TOTAL FOR PAPER IS 80 MARKS