



General Certificate of Secondary Education  
November 2025

Centre Number

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Candidate Number

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# Mathematics

Unit M5 Paper 2  
(With calculator)

Foundation Tier

[GMC52]



\*GMC52\*

**THURSDAY 20 NOVEMBER, 10.45am–11.45am**

## TIME

1 hour.

## INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

**You must answer the questions in the spaces provided.**

**Do not write outside the boxed area on each page, on blank pages or tracing paper.**

Complete in black ink only. **Do not write with a gel pen.**

Questions which require drawing or sketching should be completed using an HB pencil. All working **must** be clearly shown in the spaces provided. Marks may be awarded for partially correct solutions.

You **may** use a calculator for this paper.

Answer **all eighteen** questions.

## INFORMATION FOR CANDIDATES

The total mark for this paper is 50.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

You should have a calculator, ruler, compasses and a protractor.

The Formula Sheet is on page 2.

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# Formula Sheet

$$\text{Area of trapezium} = \frac{1}{2}(a + b)h$$



$$\text{Volume of prism} = \text{area of cross section} \times \text{length}$$





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**(Questions begin overleaf)**

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[Turn over



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1 Larry goes to a DIY store.

Complete the bill for the items he bought.

Items bought	Price paid
3 tins of paint at £18.75 each	£
5 rolls of wallpaper at £23.50 per roll	£
<b>Total</b>	£

[3]



2 The prices for different weights of apples bought in three stores are shown in the table.

Store name	Weight (kg)	Price
Fred's Fruits	4	£8.24
Graham's Grocers	5	£10.25
Pippa's Produce	7	£14.49

From which store would 3 kg of apples cost exactly £6.21?

Show your working out clearly.

Circle the correct answer.

Fred's Fruits

Graham's Grocers

Pippa's Produce

[2]

[Turn over



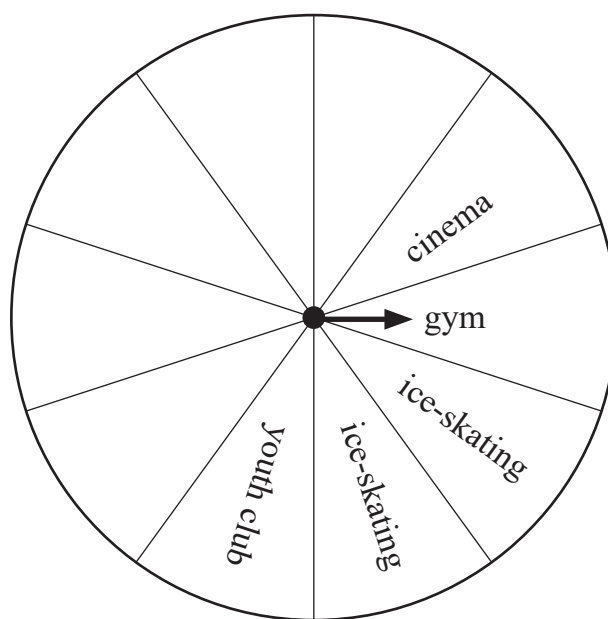
- 3 (a) Bella spins a fair spinner to decide whether to go to the cinema, the youth club, the gym or ice-skating.

Complete the spinner so that

youth club and ice-skating are **equally likely** to be landed on

cinema is **most likely** to be landed on

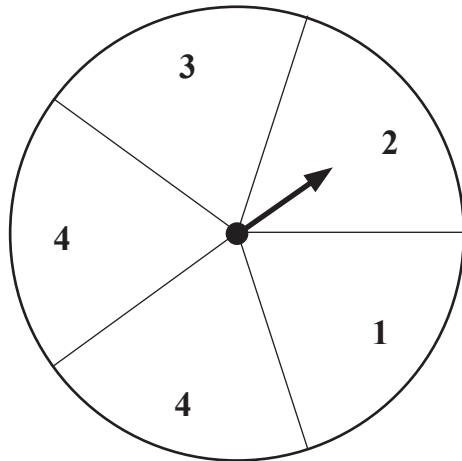
gym is **least likely** to be landed on



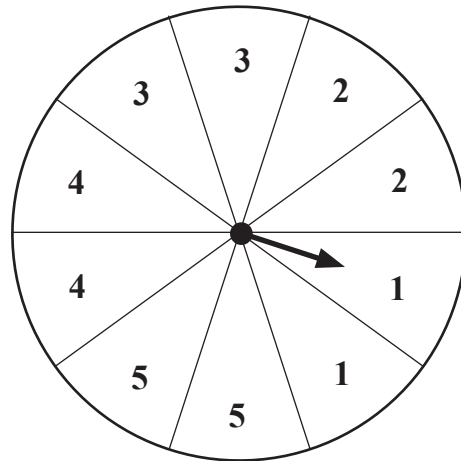
[2]



(b) Eva and Finn are playing a game with fair spinners.



Eva's spinner



Finn's spinner

They each spin their spinner 10 times and count the number of 4s scored.

The winner is the player who scores the most 4s.

**Circle the true statement.**

Eva is more likely to win

Finn is more likely to win

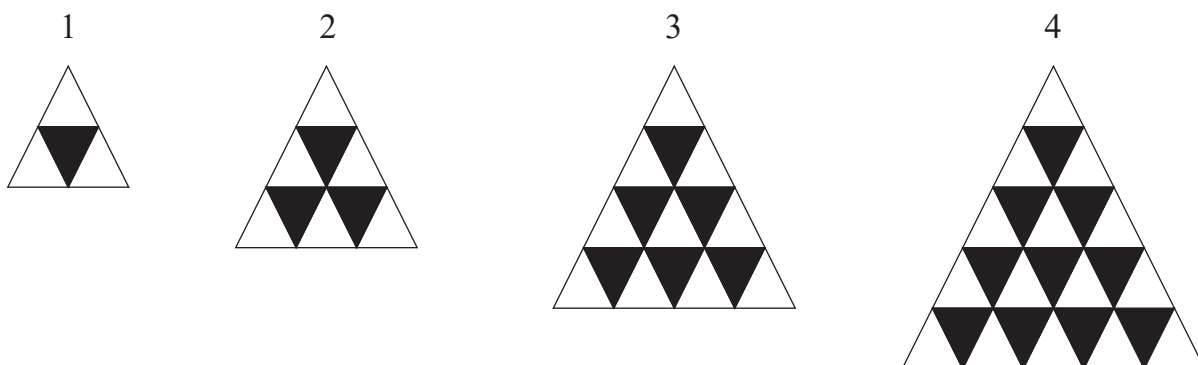
Eva and Finn are equally likely to win

[1]

[Turn over



4 A tiling pattern is drawn with small triangles as shown.



(a) Complete the table below.

Pattern number	1	2	3	4
Number of shaded triangles	1			
Total number of small triangles	4			

[2]

(b) If the tiling pattern was continued, what would be the total number of small triangles in Pattern 6?

Answer \_\_\_\_\_ [1]



5 1 gallon is 4.5 litres.

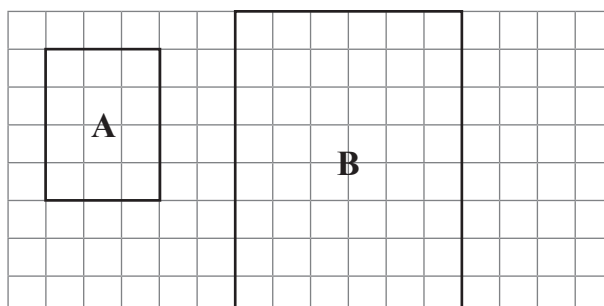
How many gallons are in 27 litres?

Answer \_\_\_\_\_ gallons [2]



- 6 (a) Rectangle **B** is an enlargement of Rectangle **A**.

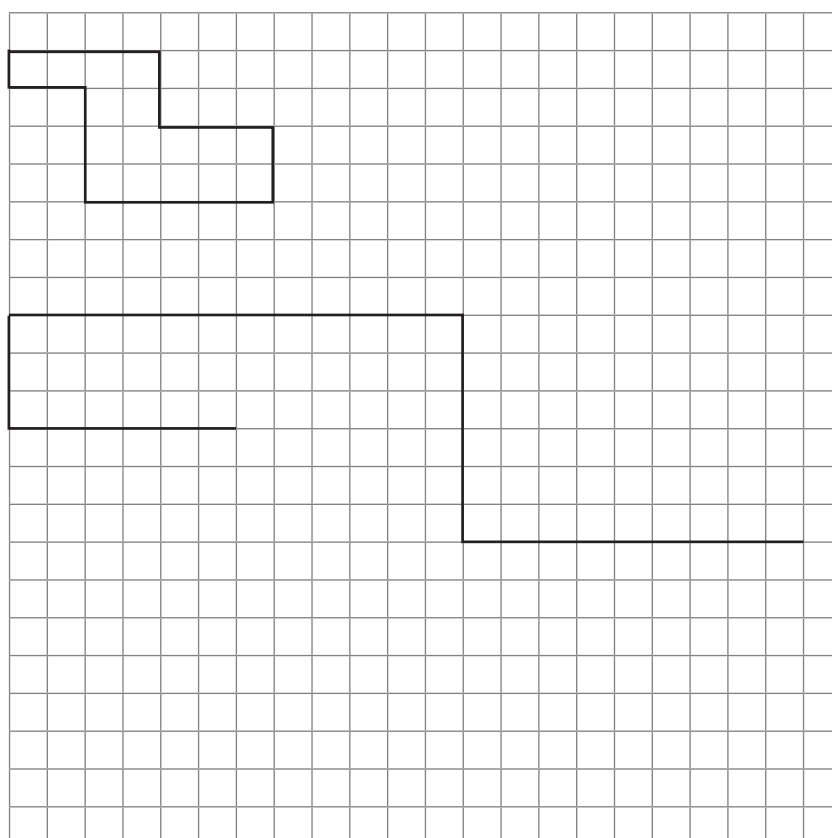
What is the scale factor of the enlargement?



Answer \_\_\_\_\_ [1]

- (b) John has started enlarging the shape below using a scale factor of 3

Finish off the enlargement.



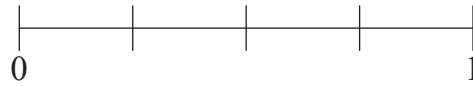
[1]



7 Kylie has 12 coloured pencils.

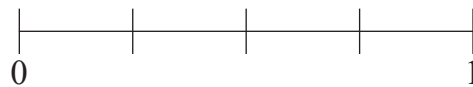
She has 1 red, 2 blue and 9 yellow pencils.

- (a) Mark on the probability scale, with an  $\times$ , the probability that Kylie chooses a green pencil at random.



[1]

- (b) Mark on the probability scale, with an  $\times$ , the probability that Kylie chooses a yellow pencil at random.



[1]

- (c) Which statement below is not true?

- A: A probability near 0 indicates an impossible event.
- B: A probability of  $\frac{1}{2}$  indicates an even chance.
- C: A probability of 1 indicates a certain event.
- D: A probability of  $\frac{1}{4}$  indicates an unlikely event.

Answer Statement \_\_\_\_\_ [1]

[Turn over



8 A youth club offers members the activities shown below.

Session 1	Session 2
Gaming	Basketball
Archery	Swimming
Rounders	Darts
Orienteering	

Members choose

one activity from Session 1 and

one activity from Session 2

One of the possible choices is Gaming and Basketball, which can be recorded as **GB**.

List all of the possible choices that can be made.

**GB,**

[2]



9 Kelly says that the sum of the numbers 5, 6, 7, 8, 9 and 10 is more than 11% of 400

Is Kelly correct?

Show your working out clearly.

Answer \_\_\_\_\_ [3]



10 Find the difference between  $\frac{3}{4}$  of 48 and  $\frac{2}{3}$  of 144

**Show your working out clearly.**

Answer \_\_\_\_\_ [3]





Buy 1  
Cupcake  
for 75p

Special Offer  
Buy 3  
Cupcakes  
for £2.10

Carla is buying cupcakes.

Show that **the greatest** number of cupcakes she can buy with £10 is 14

Show your working out clearly.

[3]

[Turn over



12 Here are two exchange rates:

£1 = 1.33 U.S. dollars

£1 = 1.85 Canadian dollars

How many **more** Canadian dollars than U.S. dollars can be bought with £500?

Answer \_\_\_\_\_ Canadian dollars [3]



13 Pam is making stew.

1 kg of potatoes makes enough stew for 3 people.

She plans to feed 15 people.

Potatoes cost 65p per lb.

Work out the cost of the potatoes for the stew.

Answer £ \_\_\_\_\_ [3]

[Turn over

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14 Pete has 2 bags of sweets.

In the first bag there are 10 sweets of which 4 are toffee.

In the second bag 6 sweets are toffee.

The probability of taking a toffee sweet from each bag is the same.

How many sweets are there in the second bag?

Answer \_\_\_\_\_ [3]



15 A sofa costs £1680

Abbie and Barry share the cost in the ratio 3 : 5

How much less does Abbie pay than Barry?

Answer £ \_\_\_\_\_ [3]



16

$$1, \frac{8}{5}, \frac{11}{5}, \frac{14}{5}, \frac{17}{5}, \dots$$

Olivia says that the next term in the sequence must be 4

Explain why Olivia is correct.

[2]

17 A rectangle has length  $3x$

The rectangle is enlarged by scale factor 4

Write down the new length.

Answer \_\_\_\_\_ [1]

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\*24GMC5220\*

18 A spinner has the colours red, blue, pink, yellow and green.

The table shows the probability of the spinner landing on some of the colours.

Colour	red	blue	pink	yellow	green
Probability		0.08		0.4	0.23

The probability of landing on red is twice the probability of landing on blue.

(a) Complete the table for red and pink. [3]

(b) The spinner is spun 400 times.

How many **more** times do you expect it to land on yellow than green?

Answer \_\_\_\_\_ [3]

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**THIS IS THE END OF THE QUESTION PAPER**

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Question Number	Marks
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<b>Total Marks</b>	
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Examiner Number

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