AQA

Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

I declare this is my own work.

GCSE MATHEMATICS

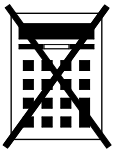
F

Foundation Tier Paper 1 Non-Calculator

Wednesday 5 November 2025 Morning Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:
- mathematical instruments
- the Formulae Sheet (enclosed).



You must **not** use a calculator.

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.

Advice

In all calculations, show clearly how you work out your answer.

For Examiner's Use	
Pages	Mark
2–3	
4–5	
6–7	
8–9	
10–11	
12–13	
14–15	
16–17	
18–19	
20–21	
22–23	
24	
TOTAL	

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

Do not write outside the box

1 (a) Work out 50% of 410

[1 mark]

Answer _____

1 (b) Write 0.85 as a percentage.

[1 mark]

Answer _____ %

1 (c) Write down **one** number between 10 and 20 that is a factor of 24

[1 mark]

Answer _____

Do not write outside the box

2 (a) Simplify $c \times d$

[1 mark]

Answer _____

2 (b) Simplify fully $a + a$

[1 mark]

Answer _____

2 (c) Simplify fully $3m + 2m - 6m$

[1 mark]

Answer _____

Turn over for the next question

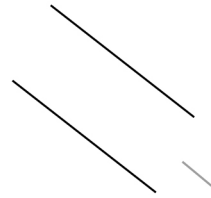
6

Do not write outside the box

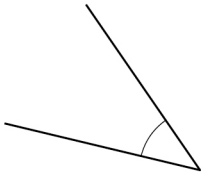
3 Match each diagram to its description.

One has been done for you.

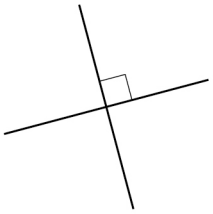
[2 marks]



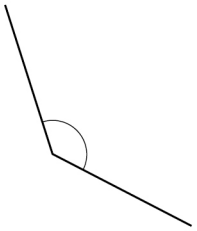
Acute angle



Parallel lines



Obtuse angle

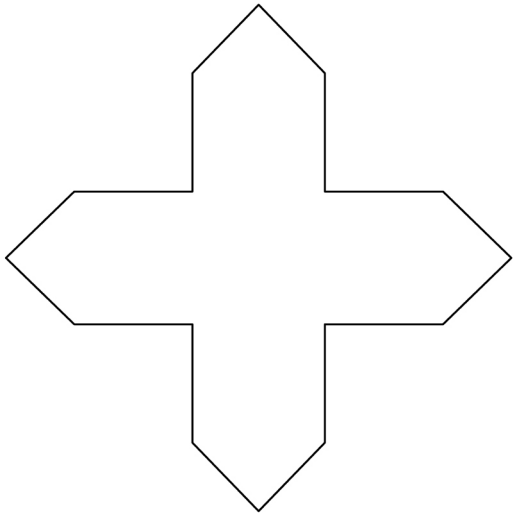


Perpendicular lines

Do not write outside the box

4 (a) Draw the **four** lines of symmetry on the shape below.

[2 marks]



4 (b) A different shape has

- 4 sides
- exactly **one** pair of parallel sides.

Write down the name of the shape.

[1 mark]

Answer _____

Turn over for the next question

5

Do not write outside the box

5 (a) Change 240 minutes to hours.

[1 mark]

Answer _____ hours

5 (b) 1 inch = 2.5 centimetres

Change 20 inches to centimetres.

[2 marks]

Answer _____ cm

Do not write outside the box

6 Alice and Ben each have some sweets.

Chris has no sweets.

- Alice gives 6 sweets to Chris.
- Ben gives 9 sweets to Chris.

Now they all have the same number of sweets.

How many sweets did **Ben** have to start with?

[2 marks]

Answer _____

Turn over for the next question

5

Do not write outside the box

7 (a) Four numbers have a range of 10

Three of the numbers are 11, 15 and 18

Work out the **two** possible values of the other number.

[2 marks]

Answer _____ and _____

7 (b) Here are five numbers.

8 7 3 8 4

Abi says the median is 3

Is he correct?

Tick a box.

Yes ☐ No ☐

Give a reason for your answer.

[1 mark]

7 (c) This is Emmy's method to work out the mean of 9, 12 and 18

$9 + 12 + 18 \div 3 = 27$

What is wrong with her method?

[1 mark]

Do not write outside the box

8 Jay is buying eggs to make omelettes.

They will

- make 7 omelettes
- use 3 eggs for each omelette.

They buy 2 boxes of eggs.

There are 15 eggs in each box.

How many eggs does Jay have left after making all 7 omelettes?

[3 marks]

Answer _____

9 Here is a list of numbers.

18 16 30 29 49 8

Work out the **difference** between the two **square** numbers.

[3 marks]

Answer _____

10

Turn over ►

Do not write outside the box

10 Ethan and Sal bought some items.

Ethan

- paid with two £20 notes
- was given a £5 note, two £2 coins and a 50p coin as change.

Sal bought

- a bag for £13.49
- a necklace for £17.29

Who spent more, Ethan or Sal?

You **must** show your working.

[5 marks]

Answer _____

Do not write outside the box

11 Masood rides his bike every day for 42 days.

Each day he rides 13 miles.

Work out the **total** number of miles he rides.

[3 marks]

Answer _____ miles

12 Here are two calculations.

A
$2 \times 3 + 14$

B
$12 + 54 \div 3$

Work out answer to A × answer to B

[3 marks]

Answer _____

11

Turn over ►

Do not write outside the box

13 (a) A bag has only green discs and pink discs in the ratio 7 : 5

What fraction of the discs are green?

[1 mark]

Answer _____

13 (b) Another bag has blue discs and orange discs in the ratio 2 : 1

There are 40 blue discs.

How many orange discs are in the bag?

[1 mark]

Answer _____

13 (c) In a different bag there are 72 red discs and 54 yellow discs.

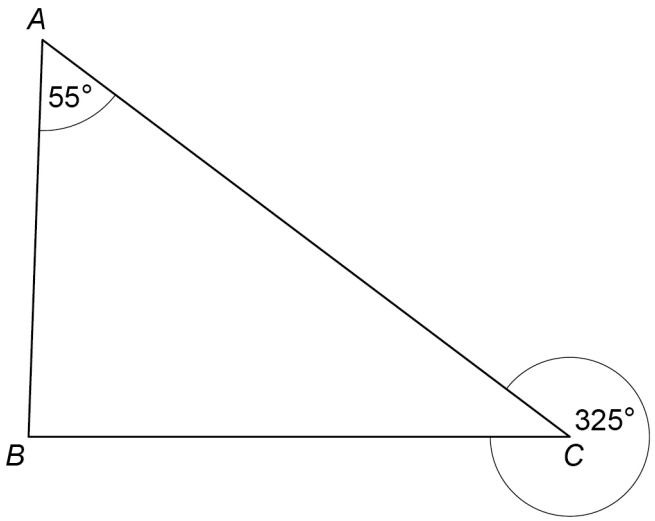
Write the ratio red discs : yellow discs in its simplest form.

[2 marks]

Answer _____ : _____

Do not write outside the box

14 Here is triangle *ABC*.



Not drawn accurately

Show that *ABC* is a right-angled triangle.

[2 marks]

Turn over for the next question

6

Do not write outside the box

15 The number of people visiting a museum for 6 months is shown in the table.

Month	Number of people
April	2075
May	2292
June	362
July	2217
August	2022
September	837

15 (a) The museum usually opens every day.
The museum had to close for 3 weeks in one of the six months.

In which of the six months do you think this is most likely to have happened?
Give a reason for your answer.

[1 mark]

Month _____

Reason _____

15 (b) Each person paid £19.75 for a ticket.

By **rounding**, estimate the income from ticket sales for **May**.

[2 marks]

Answer £ _____

Do not write outside the box

16

Box A



Each button 10 g

Box B



Each button 15 g

The total mass of buttons in box A is

- between 70 g and 100 g
- equal to the total mass of buttons in box B.

Work out the number of buttons in each box.

[2 marks]

Box A has _____ buttons

Box B has _____ buttons

5

Turn over ►

Do not write outside the box

17 The possible values of x are 12 or 30

The possible values of y are 2 or 3

17 (a) Work out the **four** possible values of $\frac{x}{y}$

[2 marks]

Answer _____ _____ _____ _____

17 (b) Work out the **greatest** possible value of $4x + 5y$

[2 marks]

Answer _____

Do not write outside the box

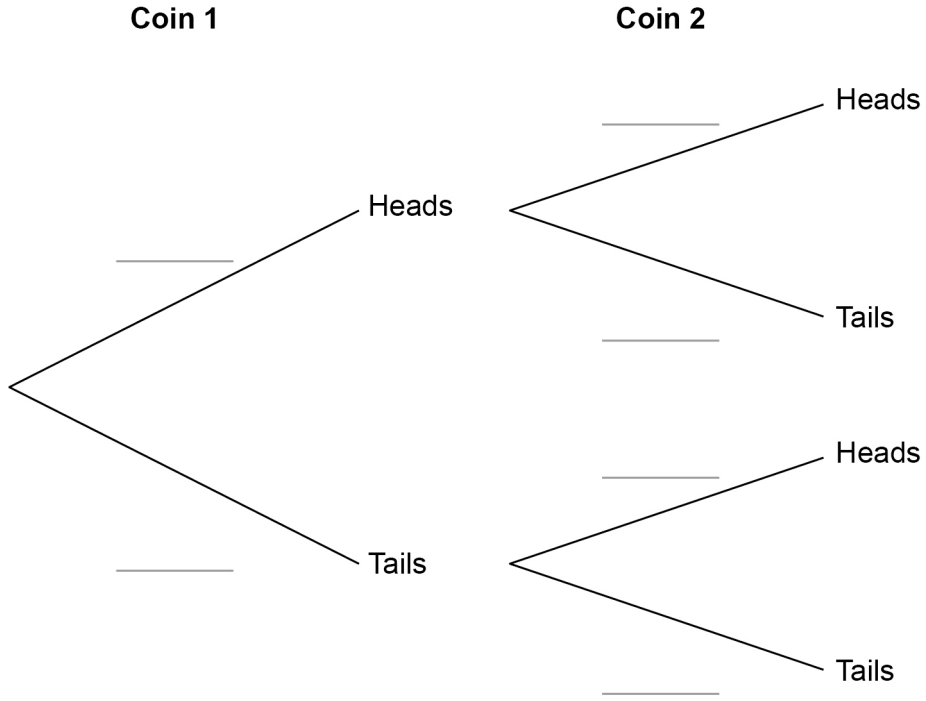
18 Two coins are spun.

Coin 1 is fair.

Coin 2 is **three** times as likely to land on heads as tails.

18 (a) Complete the tree diagram.

[2 marks]



18 (b) Work out the probability that **both** coins land on heads.

[2 marks]

Answer _____

8

Turn over ►

Do not write outside the box

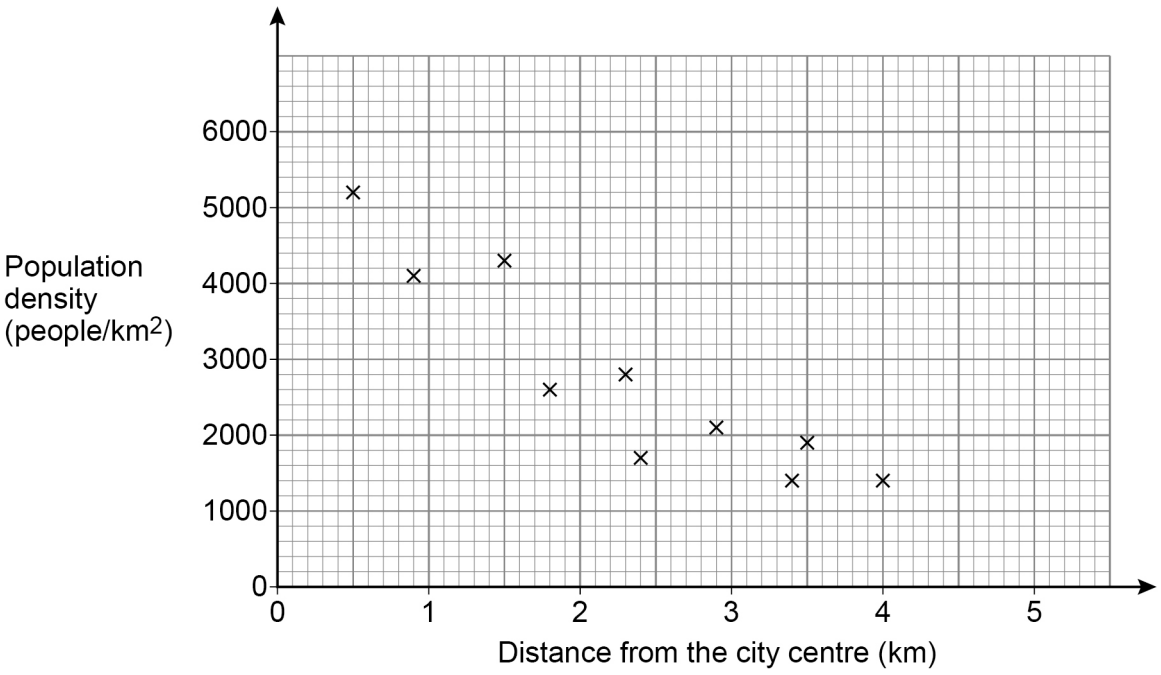
19 Solve $7x - 2 = 3x + 16$

[3 marks]

$x =$ _____

Do not write outside the box

20 The scatter graph shows the population density of ten areas in a city and the distance of the area from the city centre.



20 (a) The scatter graph shows negative correlation.

Describe the relationship between the population density and the distance of the area from the city centre.

[1 mark]

20 (b) Use a straight **line of best fit** to estimate the population density of an area 2 km from the city centre.

[2 marks]

Answer _____ people/km^2

6

Turn over ►

Do not write outside the box

21 (a) Work out $\frac{2}{5} + \frac{7}{20}$

Give your answer as a **decimal**.

[2 marks]

Answer _____

21 (b) x is an integer and $\frac{1}{x}$ converts to a **terminating** decimal.

Kelly says,

"There must be only **one** digit after the decimal point, because $\frac{1}{2} = 0.5$"

Is she correct?

Tick a box.

Yes ☐ No ☐

Give a reason for your answer.

[1 mark]

Do not write outside the box

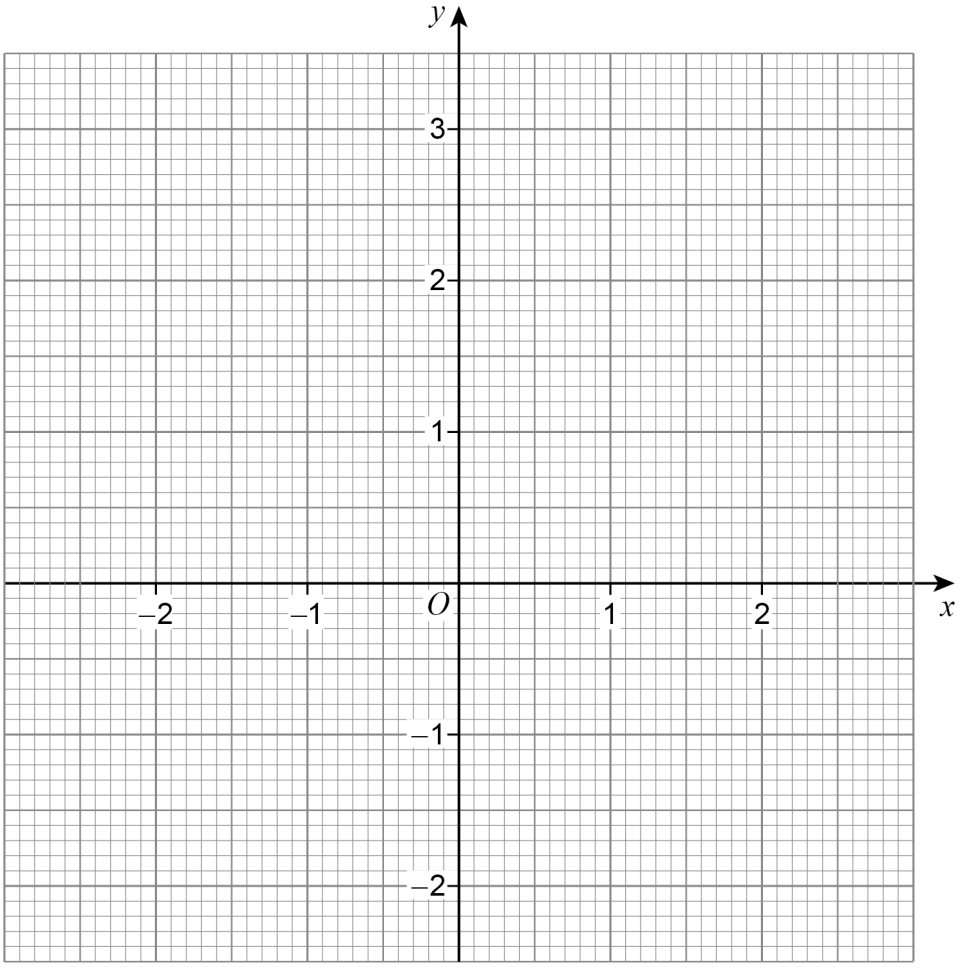
22 (a) Complete the table of values for $x + 2y = 3$

[2 marks]

x	–2	–1	0	1	2
y	2.5			1	0.5

22 (b) Draw the graph of $x + 2y = 3$ for values of x from –2 to 2

[2 marks]



7

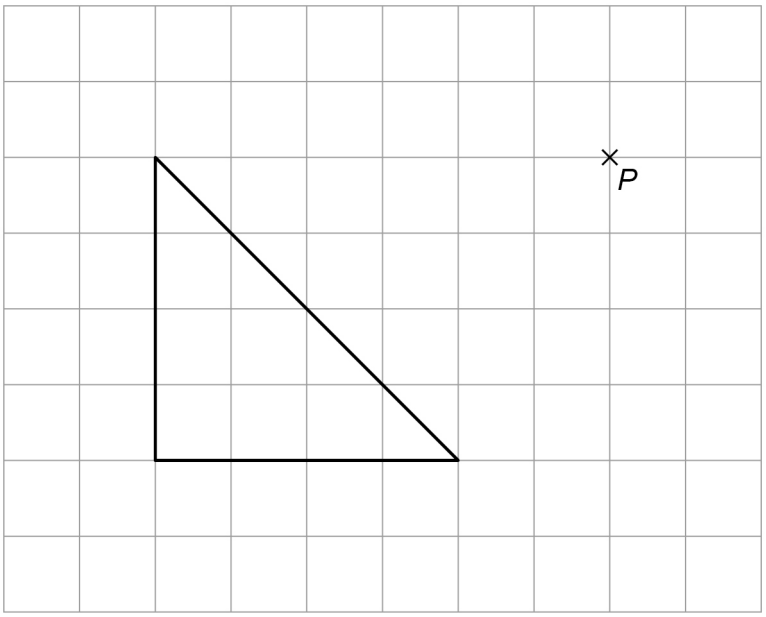
Turn over ►

Do not write outside the box

23 On the grid, draw an enlargement of the triangle with

- scale factor $\frac{1}{2}$
- centre of enlargement P

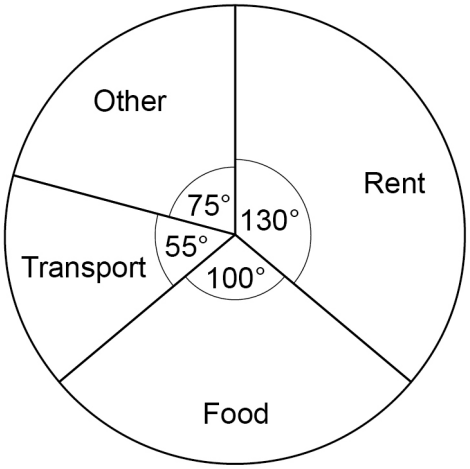
[3 marks]



Do not write outside the box

24 The pie chart below shows what Jane spent her money on last month.

Not drawn accurately



24 (a) Write the ratio Transport : Other : Food in its simplest form.

[2 marks]

Answer _____ : _____ : _____

24 (b) Jane spent £390 on rent.

Work out how much she spent on transport.

[3 marks]

Answer £ _____

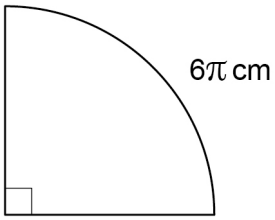
8

Turn over ►

Do not write outside the box

25 A sector has perimeter $6\pi + 24$ cm

Not drawn accurately



Work out the area of the sector.

Give your answer in terms of π

[3 marks]

Answer _____ cm^2

END OF QUESTIONS

3

Do not write outside the box

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Do not write outside the box

Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

Do not write outside the box

Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

Do not write outside the box

Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

Copyright information

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from www.aqa.org.uk.

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2025 AQA and its licensors. All rights reserved.