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

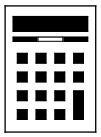
F

Foundation Tier Paper 3 Calculator

Monday 10 November 2025 Morning Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:



- a calculator
- mathematical instruments
- the Formulae Sheet (enclosed).

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	
TOTAL	

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

Do not write outside the box

1 (a) Solve $x - 2 = 3$

[1 mark]

$x =$ _____

1 (b) Solve $y + y = 18$

[1 mark]

$y =$ _____

1 (c) Solve $10t = 10$

[1 mark]

$t =$ _____

1 (d) Solve $w + 9 = -2$

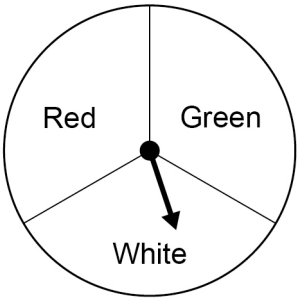
[1 mark]

$w =$ _____

Do not write outside the box

2 The three **equal** sections on a fair spinner are

Red (R) Green (G) and White (W)



2 (a) Josie spins the spinner once.

Write down the **probability** that the spinner lands on Red.

[1 mark]

Answer _____

2 (b) Meena spins the spinner twice.

Complete the table to show the 9 possible outcomes for the two spins.

[2 marks]

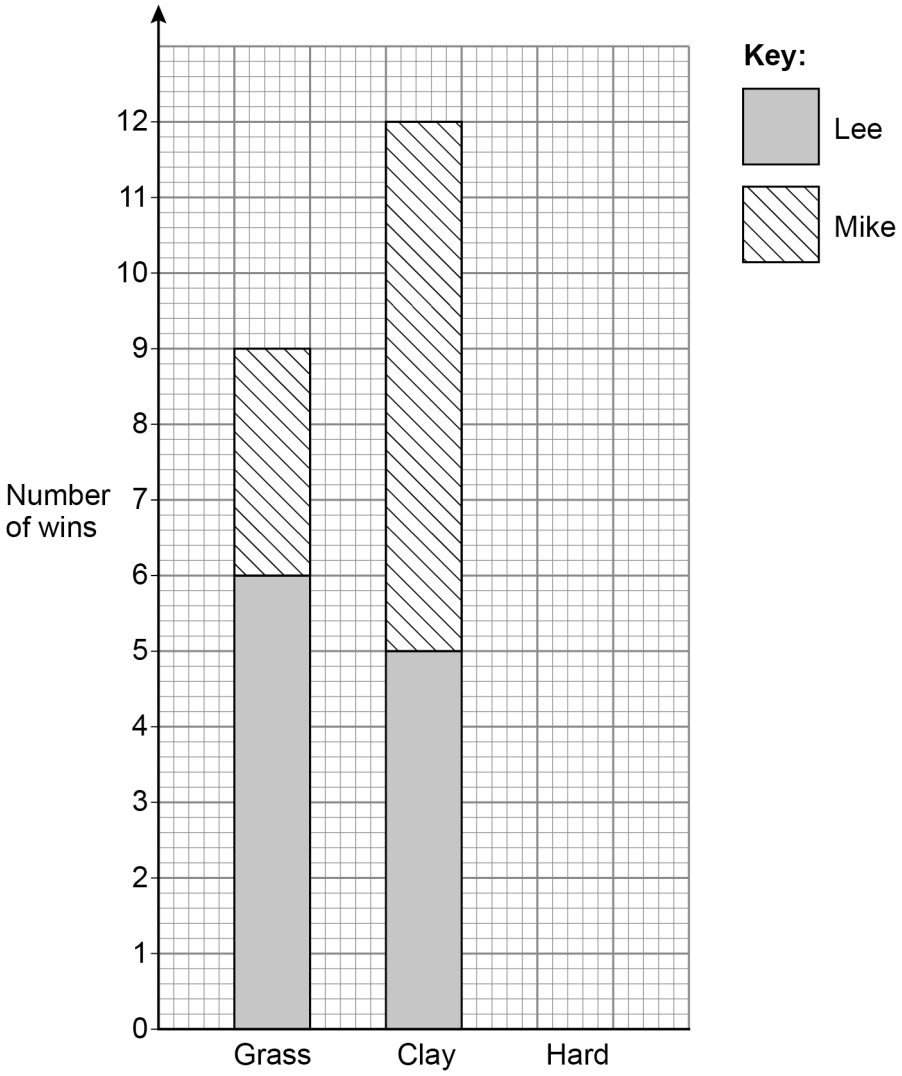
RR	RG	RW
GR		

7

Do not write outside the box

3 Lee and Mike play tennis on grass, clay or hard courts.

The composite bar chart shows how many matches they have won on grass and on clay.



3 (a) Show that, **in total**, Lee has won more matches than Mike on grass and clay.

[2 marks]

Do not write outside the box

3 (b) Lee and Mike play 8 matches on hard courts.

Lee wins **three times** as many matches as Mike.

Complete the bar chart to show the matches won on hard courts.

[2 marks]

4 Broadband costs a total of £156 for 3 months.

Work out the cost of broadband for **one year**.

[3 marks]

Answer £ _____

Turn over for the next question

7

Do not write outside the box

5 Mel makes lemon cakes.

She uses 3 whole lemons to make 5 cakes.

5 (a) Write down the fraction of a lemon needed to make **one** cake.

[1 mark]

Answer _____

5 (b) How many cakes can Mel make using 18 lemons?

[2 marks]

Answer _____

5 (c) Mel runs out of lemons.

How many lemons will Mel need to buy to make 12 cakes?

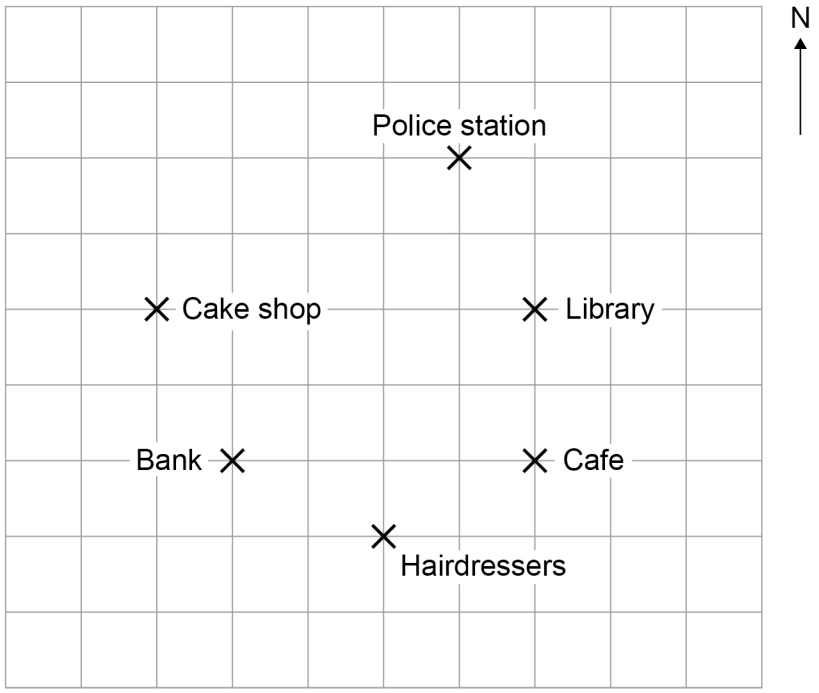
[2 marks]

Answer _____

Do not write outside the box

6 The diagram shows places in a town.

On this grid, one square length represents 300 metres.



6 (a) Which place is exactly North West of the Hairdressers?

[1 mark]

Answer _____

6 (b) Work out the distance, in metres, from the Bank to the Cafe.

[2 marks]

_____

_____

_____

Answer _____ m

6 (c) Write down the three-figure bearing of the Cafe from the Library.

[1 mark]

Answer _____ °

9

Do not write outside the box

7 Molly pays £9.50 for lunch.

She uses

- some £2 coins, some £1 coins and some 50p coins
- exactly 8 coins
- more than one of each type of coin.

How many of each coin does she use?

[3 marks]

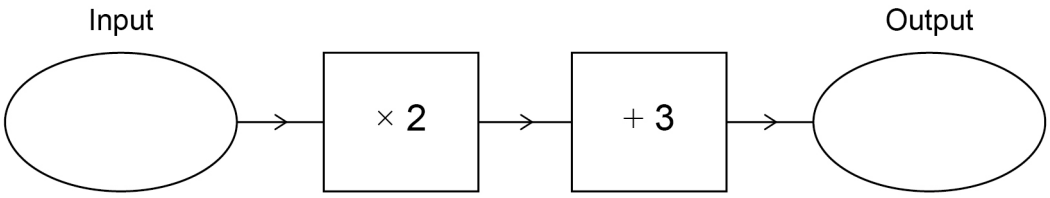
number of £2 coins _____

number of £1 coins _____

number of 50p coins _____

Do not write outside the box

8 Here is a number machine.



8 (a) Work out the **output** when the input is 0.5

[1 mark]

Answer _____

8 (b) Work out the **input** when the output is 25

[2 marks]

Answer _____

8 (c) Circle the expression for the **output** when the input is x.

[1 mark]

$2(x + 3)$ $2x + 3$ $3x + 2$ $3(x + 2)$

7

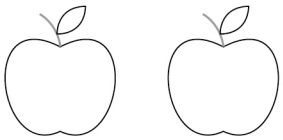
Do not write outside the box

9 30 children named their favourite fruit.

Banana	16
Apple	10
Strawberry	4

Sally drew this pictogram to represent the data.

Favourite fruit

Banana	
Apple	
Strawberry	

The strawberry row is correct.

Write down **three** mistakes she has made.

[3 marks]

Mistake 1 _____

_____

_____

Mistake 2 _____

_____

_____

Mistake 3 _____

_____

_____

Do not write outside the box

10 A school needs coaches for 925 people.

Each coach,

- holds 45 people
- costs £500

Work out the **total** cost of the coaches.

[4 marks]

Answer £ _____

11 (a) $t = q^2 + 2c$

Work out the value of t when $q = 3$ and $c = -7$

[2 marks]

$t =$ _____

11 (b) Rearrange $a = b - c$ to make b the subject.

[1 mark]

$b =$ _____

10

Turn over ►

Do not write outside the box

12 A scooter uses 0.01 units of electricity to travel 5 miles.

The cost of electricity is 80p per unit.

Work out the cost to travel 200 miles using this scooter.

State the units of your answer.

[4 marks]

Answer _____

13 $a : b = 7 : 4$

Tick **one** box for each statement.

[3 marks]

	Always true	**May be true**	**Not true**
$a = 7$ and $b = 4$	☐	☐	☐
$b : a = 4 : 7$	☐	☐	☐
$\frac{a}{b} = \frac{4}{7}$	☐	☐	☐

Do not write outside the box

14 1 and 64 are square numbers **and** cube numbers.

Work out the **next** number after 64 that is both a square number **and** a cube number.

[3 marks]

Answer _____

15 A bag contains 72 blue beads and some red beads.

blue beads : red beads = 4 : 5

Work out the number of red beads.

[2 marks]

Answer _____

12

Do not write outside the box

16 Mo and Nik share some money.

Mo gets,

- $\frac{3}{5}$ of the money
- £810

Mo gives £380 to charity.

Nik gives 45% of his money to charity.

In **total**, how much money do they give to charity?

[4 marks]

Answer £ _____

17 Expand and simplify fully $5(2x + 4) + 3x - 6$

[2 marks]

Answer _____

Do not write outside the box

18 The term-to-term rule of a sequence is

double the previous term and add 7

The first term is

$3b - 5$

Work out the **third** term.

[3 marks]

Answer _____

19 The angles of a quadrilateral are in the ratio 2 : 3 : 3 : 4

Work out the **largest** angle.

[3 marks]

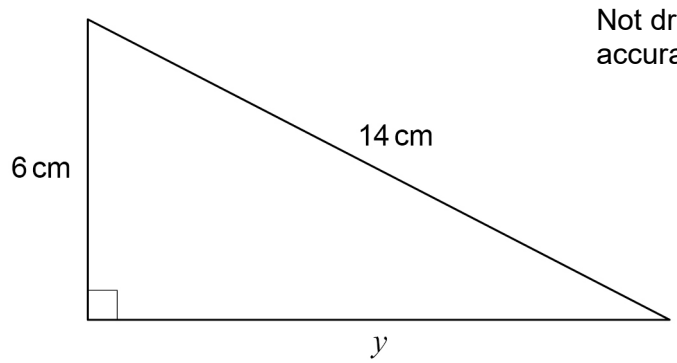
Answer _____ °

12

Turn over ►

Do not write outside the box

20 Here is a triangle.



Use Pythagoras' theorem to work out the value of y.

You **must** show your working.

Give your answer as a decimal.

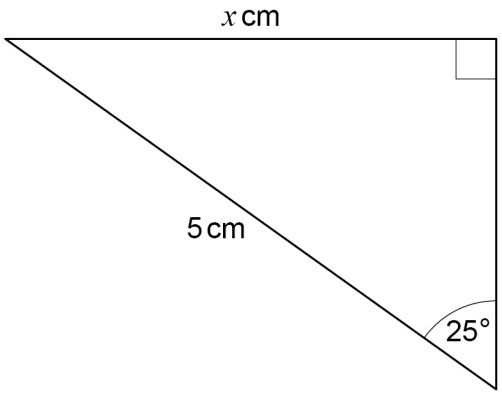
[3 marks]

Answer _____ cm

Do not write outside the box

21

Not drawn accurately



Use trigonometry to work out the value of x.

You **must** show your working.

[3 marks]

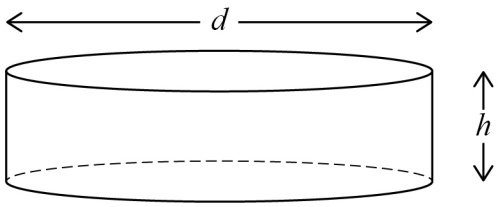
$x =$ _____ cm

Turn over for the next question

6

Do not write outside the box

22 An ice hockey puck is a cylinder.



The mass of the puck is 170 g

22 (a) Work out the density of the puck when $d = 7.6\,\text{cm}$ and $h = 2.5\,\text{cm}$

State the units of your answer.

[4 marks]

Answer _____

Do not write outside the box

22 (b) In fact, $d = 7.62\,\text{cm}$ and $h = 2.54\,\text{cm}$

Without further calculation, how does this affect the density?

Tick **one** box.

[1 mark]

☐ The density is greater than the answer to part (a)

☐ The density is less than the answer to part (a)

☐ The density is the same as the answer to part (a)

☐ It is not possible to tell

Turn over for the next question

5

Do not write outside the box

23 In a game, each player rolls an ordinary dice.

- If they roll a 6 they roll the dice again.
- If they then roll another 6 they do **not** roll again.

1038 people each play the game once.

Altogether, the dice is rolled 1092 times.

Do you think the dice is biased?

Tick a box.

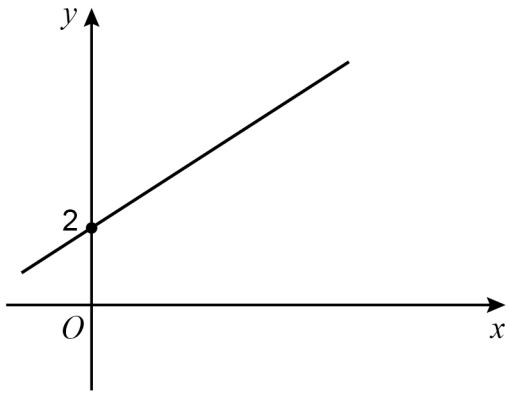
Yes ☐ No ☐

Show working to support your answer.

[3 marks]

Do not write outside the box

24 Here is a sketch of a straight line graph.



The gradient of the line is 3

Complete the equation of the line.

[2 marks]

$y =$ _____

END OF QUESTIONS

5

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There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

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

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