



**Test Papers
Hub.**

GCSE Mathematics (Higher) Mock 1 Practice Paper 1

Paper 1 — Non-Calculator

Paper 1 · Non-Calculator · 80 marks · 1 hour 30 minutes · 26 questions

How to use this booklet

- You must NOT use a calculator on this paper.
- Answer ALL questions in the spaces provided. You must show all your working: marks are awarded for correct method as well as the final answer.
- Diagrams are not accurately drawn unless otherwise stated.
- The total mark for this paper is 80. The marks for each question are shown in brackets. Allow 1 hour 30 minutes.
- Worked solutions follow the paper: every question has step-by-step working, a key takeaway and the topic it tests.

ANSWER ALL QUESTIONS

80 marks · 1 hour 30 minutes

Write your answers in the spaces provided. Show your working. Diagrams are NOT accurately drawn.

Question 1 (2 marks)

Convert $56,000 \text{ cm}^2$ to m^2 .

Answer _____ m^2

Question 2 (3 marks)

A prize of £150 is shared between three people in the ratio 4 : 5 : 6. Work out the largest share.

Answer _____ £

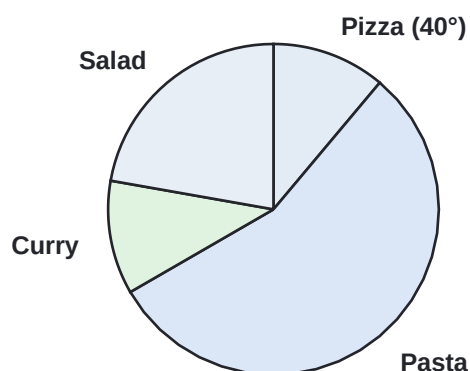
Question 3 (3 marks)

The mean of 5 numbers is 30. Here are 4 of the numbers: 24, 29, 26, 35. Work out the missing number.

Answer _____

Question 4 (2 marks)

36 people chose their favourite food. The pie chart shows the results. Work out how many people chose Pizza, given that the angle for Pizza is 40° .



Answer _____

Question 5 (3 marks)

The two-way table shows some information about a group of 39 people. Complete the table by filling in the missing numbers.

	Owned by adults	Owned by children	Total
Cats	9	?	18
Dogs	?	10	21
Total	20	?	39

Answer _____

WORKED SOLUTIONS

Answers & worked solutions

ANSWER ALL QUESTIONS

Question 1 (2 marks) [Units]

Convert $56,000 \text{ cm}^2$ to m^2 .

Answer: 5.6 m^2

- $1 \text{ m} = 100 \text{ cm}$, so $1 \text{ m}^2 = 100 \times 100 = 10\,000 \text{ cm}^2$ (for squared units, square the conversion factor).
- Going from the small unit (cm^2) to the big unit (m^2) means DIVIDE: $56,000 \div 10\,000 = 5.6$.

LOS: Number — Units

KEY TAKEAWAY

Area and volume units need the conversion factor SQUARED or CUBED ($1 \text{ m}^2 = 10\,000 \text{ cm}^2$).

Question 2 (3 marks) [Ratio]

A prize of £150 is shared between three people in the ratio 4 : 5 : 6. Work out the largest share.

Answer: £60

- Add the parts: $4 + 5 + 6 = 15$.
- One part = $\text{£}150 \div 15 = \text{£}10$.
- The largest share is 6 parts: $6 \times \text{£}10 = \text{£}60$.

LOS: Ratio, proportion and rates of change — Ratio

KEY TAKEAWAY

Always find the value of ONE part first.

Question 3 (3 marks) [Averages]

The mean of 5 numbers is 30. Here are 4 of the numbers: 24, 29, 26, 35. Work out the missing number.

Answer: 36

- Total of all 5 numbers = mean $\times$ how many = $30 \times 5 = 150$.
- Total of the numbers shown = $24 + 29 + 26 + 35 = 114$.
- Missing number = $150 - 114 = 36$.

LOS: Statistics — Averages

KEY TAKEAWAY

Missing value from a mean: total = mean $\times$ count, then subtract the numbers you already have.