
GCSE Mathematics
Paper 2 (Calculator)
Foundation Tier

Paper Reference: **GFP2.1**

Time: 1 hour 30 minutes
Total Marks: 80

This is a practice paper containing exam-style questions designed to support student preparation. It is not an official past paper or publication from any examination board.

Answer ALL questions.

- 1.** Write 42% as a decimal.

.....

(Total for Question 1 is 1 mark)

- 2.** Round 3847 to the nearest 100.

.....

(Total for Question 2 is 1 mark)

- 3.** Here is a list of numbers:

5 8 3 5 9 5 7

Write down the mode.

.....

(Total for Question 3 is 1 mark)

- 4.** Change 2.4 metres into centimetres.

..... centimetres

(Total for Question 4 is 1 mark)

- 5.** Here are five number cards:

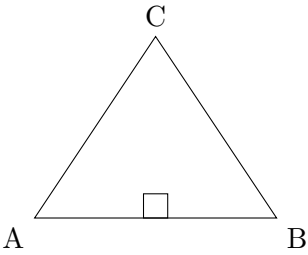
2	5	8	1	9
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Use each card once to make the largest possible 5-digit number.

.....

(Total for Question 5 is 1 mark)

6. The diagram shows triangle ABC.



(a) Measure the length of side AB.

..... cm

(1)

(b) Measure the size of angle BAC.

..... °

(1)

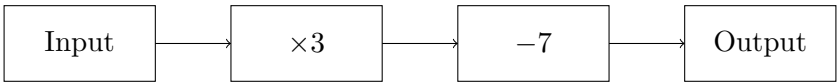
(Total for Question 6 is 2 marks)

7. Emma buys 3 magazines at £2.85 each and 2 pens at 95p each.
Work out the total cost.

£

(Total for Question 7 is 3 marks)

8. Here is a number machine:



(a) Work out the output when the input is 12.

.....

(2)

(b) Work out the input when the output is 20.

.....

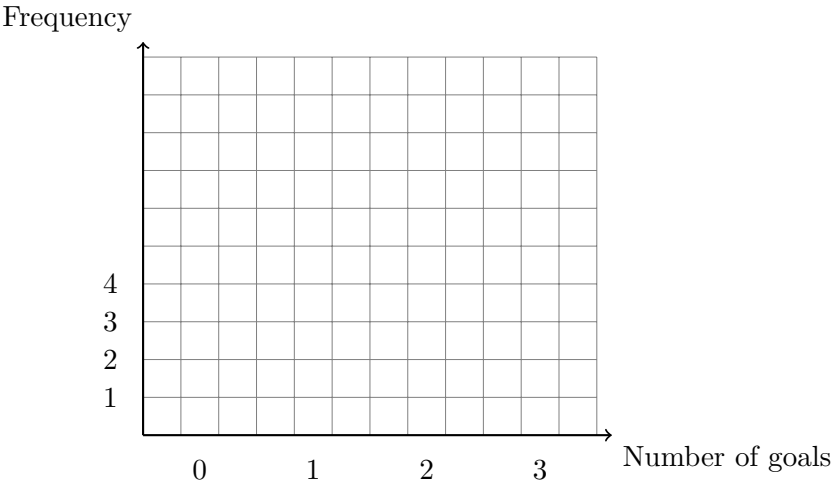
(2)

(Total for Question 8 is 4 marks)

9. The table shows the number of goals scored by a football team in their last 12 matches.

Number of goals	Frequency
0	3
1	4
2	3
3	2

Draw a bar chart for this information.

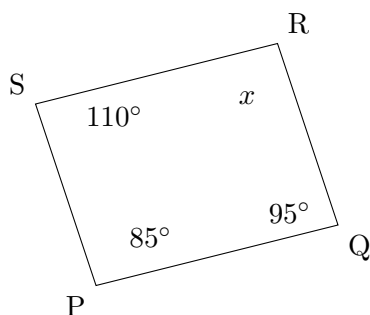


(Total for Question 9 is 3 marks)

10. Sarah wants to buy a laptop that costs £650.
She pays a deposit of 15% of the cost.
Work out how much deposit Sarah pays.

£.....
(Total for Question 10 is 3 marks)

11. The diagram shows quadrilateral PQRS.



Work out the value of x .

$x = \dots\dots\dots^\circ$
(Total for Question 11 is 2 marks)

12. (a) Work out $\frac{3}{8} \times 120$

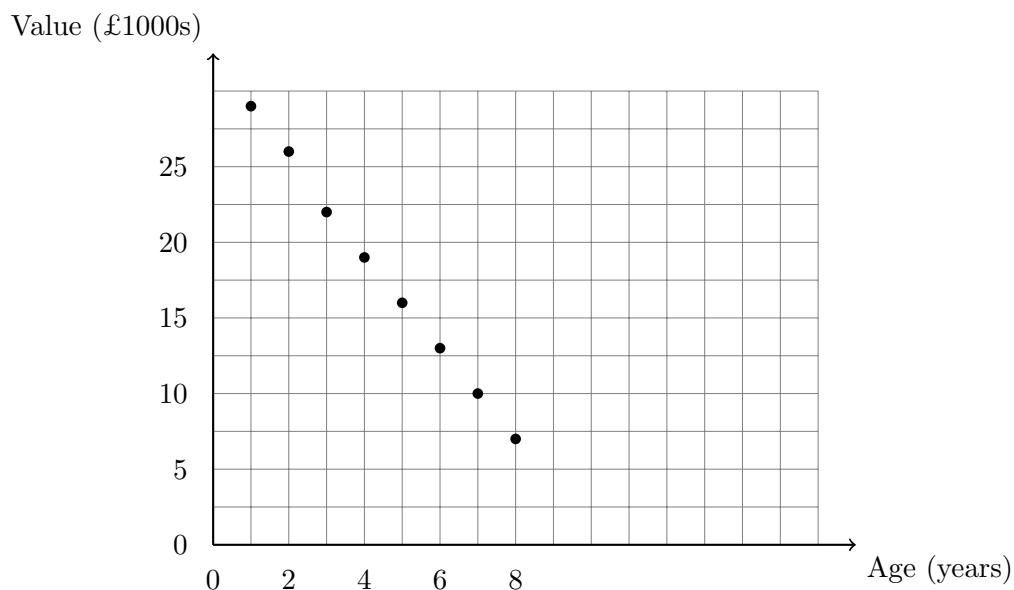
$\dots\dots\dots$

(2)
(b) Work out $2\frac{1}{4} + 1\frac{2}{3}$

$\dots\dots\dots$

(3)
(Total for Question 12 is 5 marks)

13. The scatter graph shows information about the age and value of 8 cars.



(a) Describe the relationship between the age and value of the cars.

.....

(1)

(b) Draw a line of best fit on the scatter graph.

(1)

(c) Use your line of best fit to estimate the value of a car that is 5 years old.

£.....

(1)

(Total for Question 13 is 3 marks)

14. (a) Simplify $5x + 3y - 2x + y$

.....

(2)

(b) Solve $4x - 7 = 21$

$x =$

(2)

(Total for Question 14 is 4 marks)

15. Here are the times, in minutes, that 20 people waited at a bus stop:

3, 7, 8, 2, 5, 9, 4, 6, 8, 3, 7, 5, 2, 8, 6, 4, 9, 7, 5, 6

(a) Complete the frequency table.

Time (minutes)	Frequency
2	
3	
4	
5	
6	
7	
8	
9	

(2)

(b) Find the median waiting time.

..... minutes

(2)

(Total for Question 15 is 4 marks)

16. A recipe for 6 people uses 400g of flour.

How much flour is needed for 9 people?

..... g

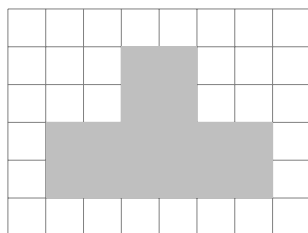
(Total for Question 16 is 3 marks)

17. Work out 25% of 84

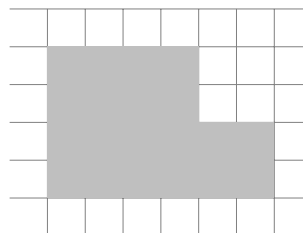
£

(Total for Question 17 is 2 marks)

18. The diagram shows the plan and front elevation of a 3D shape.

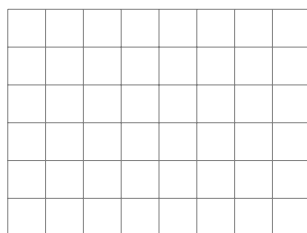


Plan



Front elevation

On the grid below, draw the side elevation of the shape as seen from the direction of the arrow.



(Total for Question 18 is 2 marks)

19. The first four terms of a sequence are:

7, 11, 15, 19, ...

(a) Write down the next term in the sequence.

.....

(1)

(b) Write down the n th term of the sequence.

.....

(2)

(Total for Question 19 is 3 marks)

20. A bag contains 5 red balls, 3 blue balls and 2 green balls.

A ball is chosen at random from the bag.

(a) Write down the probability that the ball is red.

.....

(1)

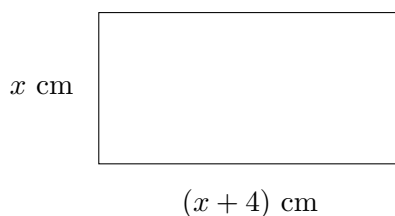
(b) Write down the probability that the ball is not green.

.....

(2)

(Total for Question 20 is 3 marks)

21. The diagram shows a rectangle with length $(x + 4)$ cm and width x cm.



The area of the rectangle is 60 cm^2 .

(a) Show that $x^2 + 4x = 60$

(1)

(b) Solve $x^2 + 4x = 60$ to find the value of x .

$x =$

(3)

(Total for Question 21 is 4 marks)

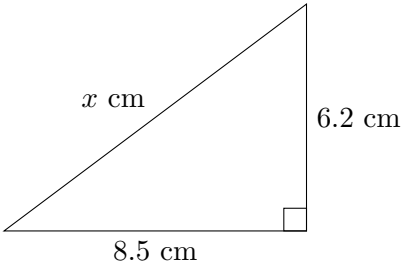
22. The table shows information about the heights of 60 students.

Height, h (cm)	Frequency
$140 \leq h < 150$	8
$150 \leq h < 160$	15
$160 \leq h < 170$	22
$170 \leq h < 180$	12
$180 \leq h < 190$	3

Calculate an estimate for the mean height.

..... cm
 (Total for Question 22 is 4 marks)

23. Here is a right-angled triangle.



Work out the value of x . Give your answer correct to 1 decimal place.

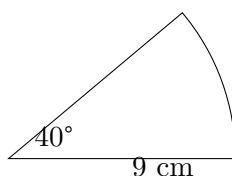
$x =$ cm
 (Total for Question 23 is 3 marks)

24. James invests £4500 at 3.2% compound interest per year.
Work out the value of his investment after 3 years.

£

(Total for Question 24 is 3 marks)

25. The diagram shows a sector of a circle with radius 9 cm and angle 40° .



Calculate the area of the sector. Give your answer correct to 1 decimal place.

..... cm^2

(Total for Question 25 is 3 marks)

26. The population of a town was 45,600 in 2020. The population decreased by 2.5% each year.
Work out the population in 2023.

.....

(Total for Question 26 is 3 marks)

TOTAL FOR PAPER IS 80 MARKS

**Educational mathematics resources:
stepupmaths.co.uk**