GCSE Mathematics
Paper 2 (Calculator)
Foundation Tier

Paper Reference: **GFP2.6**

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 39% as a fraction in its simplest form.

....

(Total for Question 1 is 1 mark)

2. Write down the value of 4^3

....

(Total for Question 2 is 1 mark)

3. Here is a list of numbers:

$$26 \quad 31 \quad 18 \quad 29 \quad 24 \quad 35 \quad 27$$

Write down the median.

....

(Total for Question 3 is 1 mark)

4. Change 2.7 litres into millilitres.

.... millilitres

(Total for Question 4 is 1 mark)

5. Here are five number cards:

| 1 | 8 | 5 | 3 | 6 |

Use each card once to make the largest possible 5-digit odd number.

. . . .

(Total for Question 5 is 1 mark)

6. The diagram shows a kite ABCD.
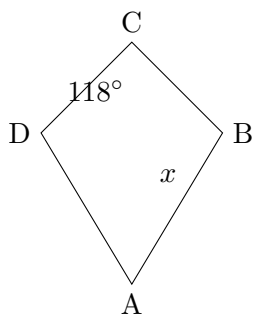
(a) Write down the size of angle ABC.

....°

(1)

(b) Work out the value of x.

$x =$ ....°
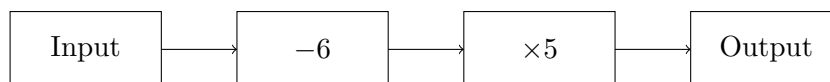
(2)

(Total for Question 6 is 3 marks)

7. Amy buys 5 boxes of chocolates at £3.40 each and 2 bottles of wine at £8.50 each.
Work out the total cost.

£..

(Total for Question 7 is 3 marks)

8. Here is a number machine:

| Input | -6 | $\times 5$ | Output |

(a) Work out the output when the input is 11.

....

(2)

(b) Work out the input when the output is 45.

....

(2)
(Total for Question 8 is 4 marks)

9. The pie chart shows how 48 students travel to school.
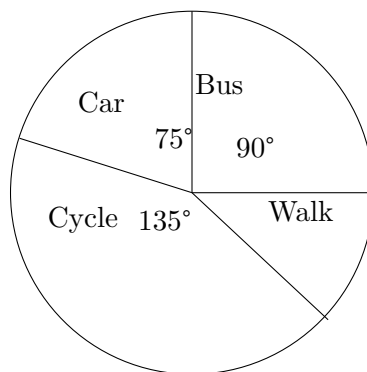
Work out how many students walk to school.

....

(Total for Question 9 is 3 marks)

10. A sofa normally costs £680.
The price increases by 15%.
Work out the new price.

£...

(Total for Question 10 is 3 marks)

11. The diagram shows triangle PQR.
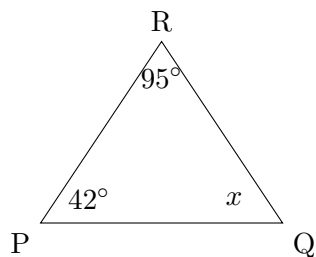
Work out the value of x.

$x =$ ....°

(Total for Question 11 is 2 marks)

12. (a) Work out $\frac{7}{9} \times 108$

....

(2)

(b) Work out $4\frac{3}{5} - 1\frac{5}{6}$

....

(3)

(Total for Question 12 is 5 marks)

13. The scatter graph shows information about the hours of sunshine and ice cream sales for 10 days.
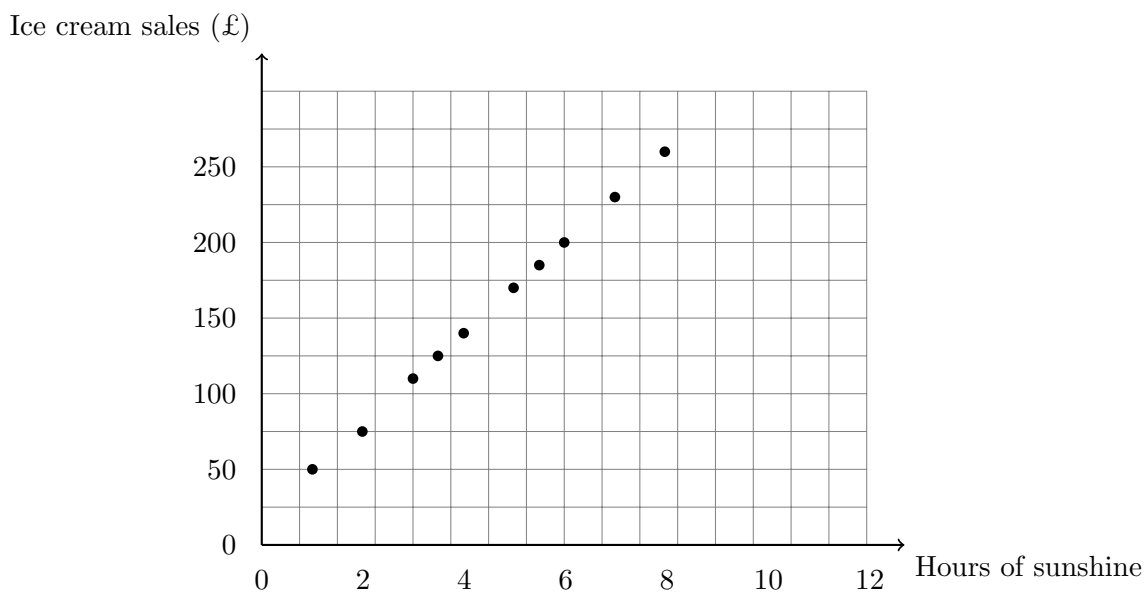
Ice cream sales (£)

(a) Describe the relationship between hours of sunshine and ice cream sales.

....

(1)

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

(1)

(c) Use your line of best fit to estimate the ice cream sales when there are 9 hours of sunshine.

£...

(1)

(Total for Question 13 is 3 marks)

14. (a) Simplify $12r + 5s - 7r + 3s$

....

(2)

(b) Solve $8z + 9 = 57$

$z = $...

(2)

(Total for Question 14 is 4 marks)

15. Here are the weights, in kg, of 18 rugby players:

78, 85, 92, 76, 89, 83, 91, 87, 79, 94, 82, 88, 75, 90, 84, 86, 93, 81

(a) Complete the frequency table.

Weight (kg)	Frequency
75-79	
80-84	
85-89	
90-94	

(2)

(b) Write down the modal class.

. . . .

(1)

(Total for Question 15 is 3 marks)

16. To make mortar, cement, sand and lime are mixed in the ratio 1 : 4 : 2.

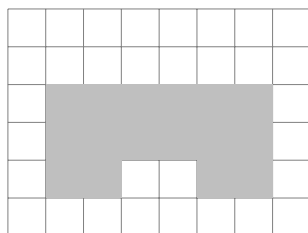How much sand is needed to make 35 kg of mortar?

. . . . kg

(Total for Question 16 is 3 marks)

17. Work out 65% of 280

£ . . . .
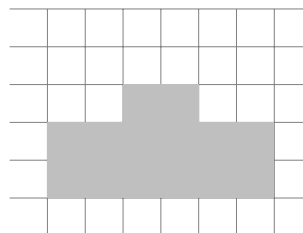
(Total for Question 17 is 2 marks)

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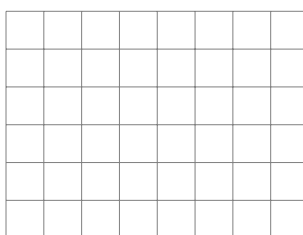

Plan   Front elevation

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

$\longrightarrow$

(Total for Question 18 is 2 marks)

19. The first four terms of a sequence are:

3, 8, 13, 18, ...

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

....

(1)

(b) Write down the nth term of the sequence.

....

(2)

(Total for Question 19 is 3 marks)

20. A fair coin is flipped and a fair six-sided dice is rolled.
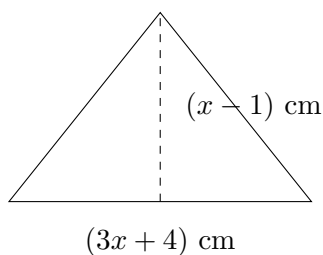(a) Complete the table to show all the possible outcomes.

	1	2	3	4	5	6
Heads	(H,1)					
Tails						

(2)
(b) Find the probability of getting tails and an even number.

....

(2)
(Total for Question 20 is 4 marks)

21. The diagram shows a triangle with base $(3x + 4)$ cm and height $(x - 1)$ cm.

$(x - 1)$ cm

$(3x + 4)$ cm

The area of the triangle is 42 cm².
(a) Show that $3x^2 + x - 4 = 84$

(2)
(b) Solve $3x^2 + x - 4 = 84$ to find the value of x.

$x = $ ....

(3)
(Total for Question 21 is 5 marks)

22. The table shows information about the prices of 40 mobile phones.

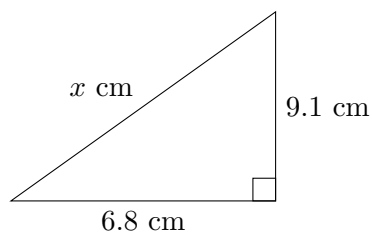| Price, p (£)	Frequency
$200 \leq p < 300$	6
$300 \leq p < 400$	11
$400 \leq p < 500$	15
$500 \leq p < 600$	8

Calculate an estimate for the mean price.

£ . . . .

(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
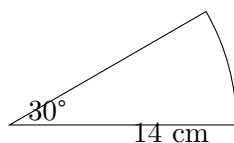
(Total for Question 23 is 3 marks)

24. Kate invests £3800 at 4.2% compound interest per year.
Work out the value of her investment after 3 years.

£. . . . .
(Total for Question 24 is 3 marks)

25. The diagram shows a sector of a circle with radius 14 cm and angle 30°.

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

. . . . cm²
(Total for Question 25 is 3 marks)

26. The price of a computer was £850 in January.
The price decreased by 12% in February and then increased by 8% in March.
Work out the price at the end of March.

£. . . . .
(Total for Question 26 is 3 marks)

TOTAL FOR PAPER IS 80 MARKS