GCSE Mathematics
Paper 2 (Calculator)
Foundation Tier

Paper Reference: **GFP2.3**

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 56% as a fraction in its simplest form.

.....

(Total for Question 1 is 1 mark)

2. Round 5693 to the nearest 10.

.....

(Total for Question 2 is 1 mark)

3. Here is a list of numbers:

4 7 2 4 9 4 6 3

Write down the mode.

.....

(Total for Question 3 is 1 mark)

4. Change 1.8 kilometres into metres.

..... metres

(Total for Question 4 is 1 mark)

5. Here are four number cards:

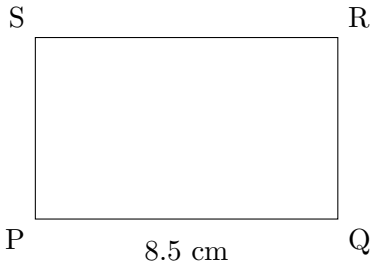
7	4	1	8

Use each card once to make the largest possible 4-digit odd number.

.....

(Total for Question 5 is 1 mark)

6. The diagram shows rectangle PQRS.



(a) Measure the width of the rectangle.

..... cm

(1)

(b) Calculate the perimeter of the rectangle.

..... cm

(2)

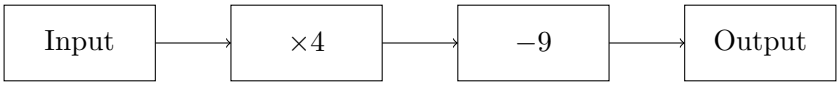
(Total for Question 6 is 3 marks)

7. Tom buys 5 packs of biscuits at £1.45 each and 2 bottles of juice at £2.30 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 8.

.....

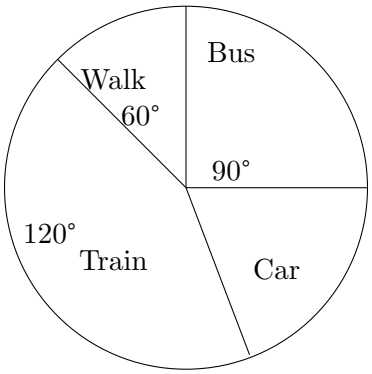
(2)

(b) Work out the input when the output is 31.

.....

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

9. The pie chart shows how 60 people travel to work.



Work out how many people travel by car.

.....

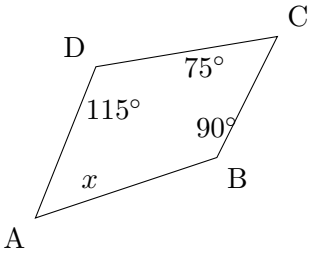
(Total for Question 9 is 3 marks)

10. A jacket normally costs £85.
In a sale, all prices are reduced by 20%.
Work out the sale price of the jacket.

£.....

(Total for Question 10 is 3 marks)

11. The diagram shows quadrilateral ABCD.



Work out the value of x.

$x =$ ..... °
(Total for Question 11 is 2 marks)

12. (a) Work out $\frac{4}{7} \times 105$

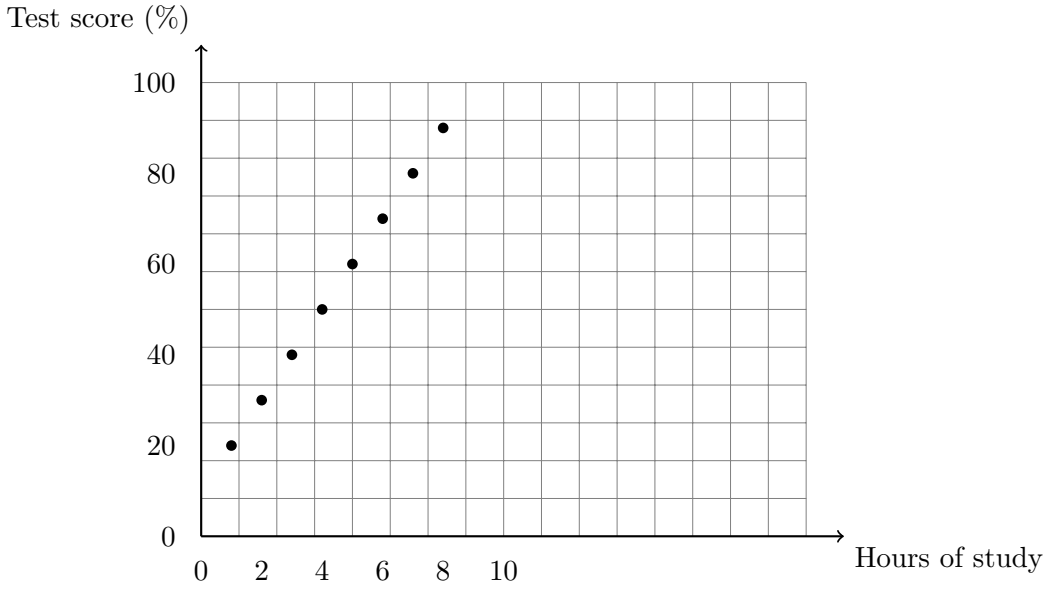
.....

(2)
(b) Work out $4\frac{2}{5} + 2\frac{1}{3}$

.....

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

13. The scatter graph shows information about the number of hours of study and test scores for 8 students.



(a) Describe the relationship between hours of study and test scores.

.....

(1)

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

(1)

(c) Use your line of best fit to estimate the test score for a student who studies for 7 hours.

.....%

(1)

(Total for Question 13 is 3 marks)

14. (a) Simplify $6p + 4q - 2p + 3q$

.....

(2)

(b) Solve $5y - 8 = 17$

$y =$.....

(2)

(Total for Question 14 is 4 marks)

15. Here are the ages, in years, of 18 people at a party:
25, 32, 18, 27, 35, 22, 29, 31, 24, 28, 33, 26, 30, 19, 34, 23, 21, 36
(a) Complete the frequency table.

Age (years)	Frequency
18-22	
23-27	
28-32	
33-37	

(2)
(b) Which age group has the highest frequency?

.....

(1)
(Total for Question 15 is 3 marks)

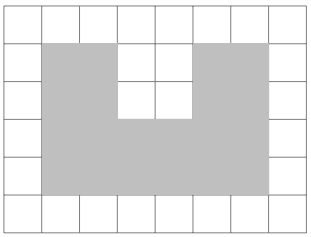
16. A recipe for 8 people uses 600g of pasta.
How much pasta is needed for 12 people?

..... g
(Total for Question 16 is 3 marks)

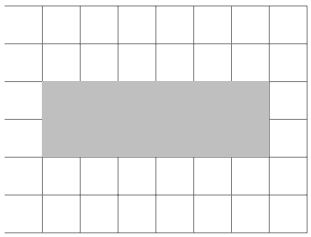
17. Work out 35% of 160

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

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

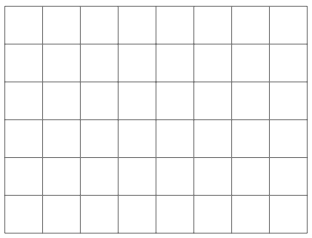


Front elevation



Plan

On the grid below, draw the side elevation of the shape.



(Total for Question 18 is 2 marks)

19. The first four terms of a sequence are:

5, 12, 19, 26, ...

(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 bag contains 6 white balls, 4 black balls and 2 red balls.
A ball is chosen at random from the bag.
(a) Write down the probability that the ball is white.

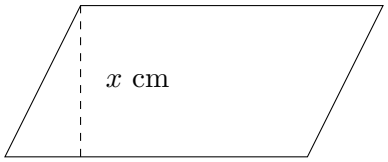
.....

(1)
(b) Write down the probability that the ball is not red.

.....

(2)
(Total for Question 20 is 3 marks)

21. The diagram shows a parallelogram with base $(3x - 2)$ cm and height x cm.



$(3x - 2)$ cm

The area of the parallelogram is 28 cm^2.
(a) Show that $3x^2 - 2x = 28$

(1)
(b) Solve $3x^2 - 2x = 28$ to find the value of x.

$x =$.....
(3)
(Total for Question 21 is 4 marks)

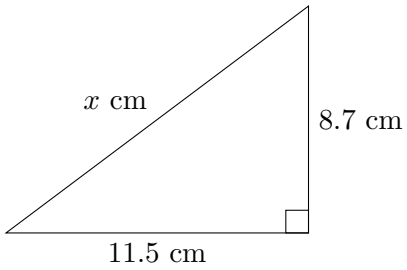
22. The table shows information about the masses of 40 parcels.

Mass, m (kg)	Frequency
$0 \leq m < 2$	5
$2 \leq m < 4$	8
$4 \leq m < 6$	15
$6 \leq m < 8$	9
$8 \leq m < 10$	3

Calculate an estimate for the mean mass.

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

23. Here is a right-angled triangle.



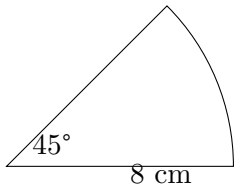
Work out the value of x. Give your answer correct to 1 decimal place.

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

24. Maya invests £2800 at 4.5% 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 8 cm and angle 45°.



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 value of a car decreases by 12% each year.
At the end of 3 years, the car is worth £15,840.
Work out the original value of the car.

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

TOTAL FOR PAPER IS 80 MARKS

Educational mathematics resources:
stepupmaths.co.uk