
GCSE Mathematics
Paper 3 (Calculator)
Foundation Tier

Paper Reference: **GFP3.1**

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 28% as a decimal.

.....

(Total for Question 1 is 1 mark)

- 2.** Write 4926 correct to the nearest hundred.

.....

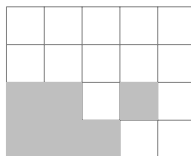
(Total for Question 2 is 1 mark)

- 3.** Write down a number that is less than -8

.....

(Total for Question 3 is 1 mark)

- 4.** Here is a grid of squares.



What fraction of the grid is shaded?

.....

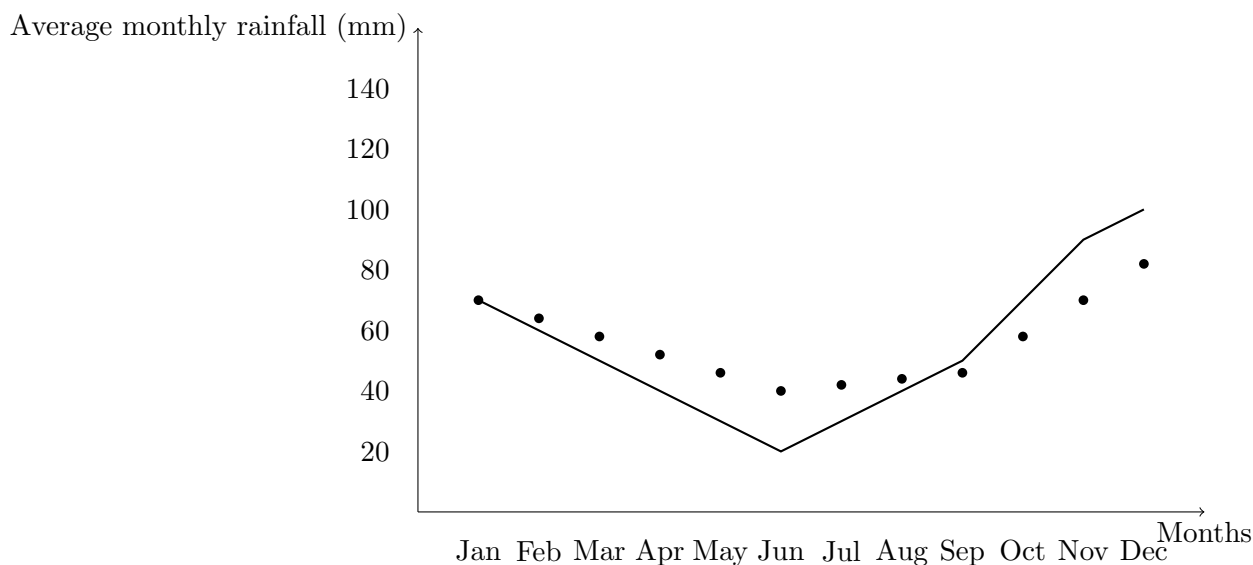
(Total for Question 4 is 1 mark)

- 5.** Write down the value of the 4 in the number 83.241

.....

(Total for Question 5 is 1 mark)

6. The graph shows information about the average monthly rainfall, in mm, in Cardiff.



(a) For how many months was the average monthly rainfall less than 60mm?

.....

(1)

(b) Write down the two months that had the same average monthly rainfall.

..... and

(1)

(Total for Question 6 is 2 marks)

7. 156 chocolates were sold from a shop.

$\frac{1}{3}$ of these chocolates were dark chocolates.

The rest of the chocolates were milk chocolates.

All the dark chocolates were sold for £2 each.

All the milk chocolates were sold for 80p each.

Work out the total amount of money for which the 156 chocolates were sold.

Give your answer in pounds.

£

(Total for Question 7 is 3 marks)

8. Four students play a game.
The table shows the number of points each student has.

Student	Jake	Mia	Olivia	Ben
Number of points	157	134	68	25

Jake has more points than Ben.

(a) How many more?

.....

(1)

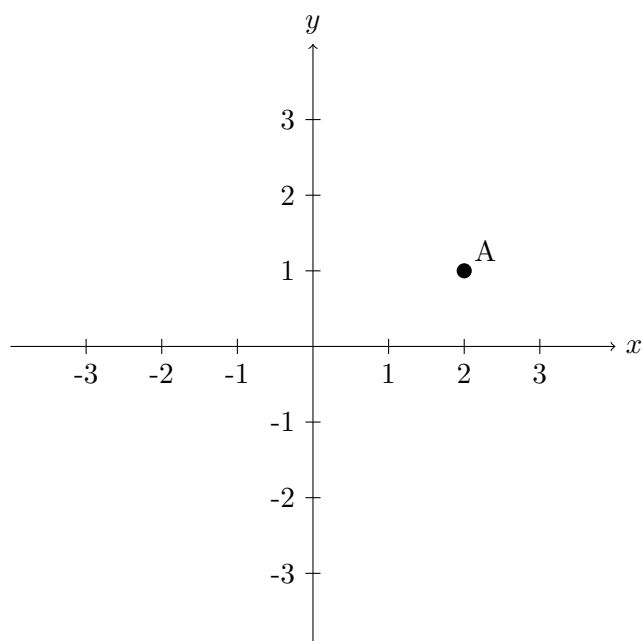
(b) Work out the mean number of points.

.....

(2)

(Total for Question 8 is 3 marks)

9.



(a) Write down the coordinates of point A.

(..... ,)

(1)

(b) On the grid, mark with a cross ($\times$) the point $(-1, 3)$
Label this point B.

(1)

(c) On the grid, draw the line with equation $y = -2$

(1)

(Total for Question 9 is 3 marks)

10. Here are the first three terms of a sequence.

12 18 15

(i) Write down two numbers that could be the 4th and 5th terms of this sequence.

..... ,

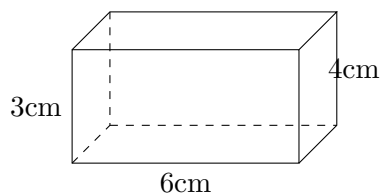
(1)

(ii) Write down the rule you used to get your numbers.

(1)

(Total for Question 10 is 2 marks)

11. Here is a cuboid.



Work out the volume of the cuboid.

..... cm³

(Total for Question 11 is 2 marks)

12. Anna, Beth and Carl each have a number of sweets.

The number of sweets that Beth has is 4 times the number of sweets that Anna has.

The number of sweets that Carl has is half the number of sweets that Beth has.

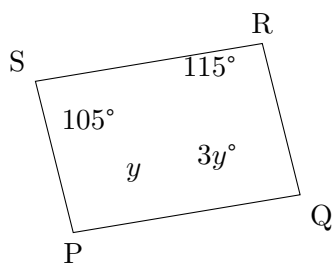
Write down the ratio

the number of sweets that Anna has : the number of sweets that Beth has : the number of sweets that Carl has

.....

(Total for Question 12 is 2 marks)

13. PQRS is a quadrilateral.



(a) (i) Work out the size of angle y .

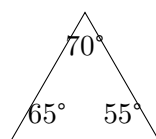
.....°

(1)

(ii) Give a reason for your answer.

(1)

The diagram below shows a triangle.



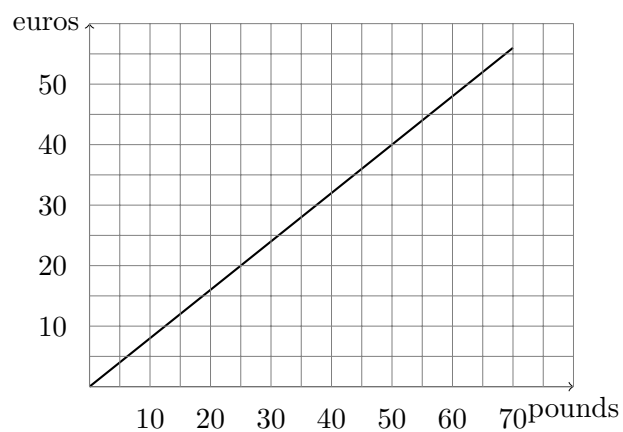
The diagram is wrong.

(b) Explain why.

(1)

(Total for Question 13 is 3 marks)

14. You can use this graph to change between pounds and euros.



(a) Change £45 to euros.

..... euros

(1)

(b) Change €32 to pounds.

£

(2)

(Total for Question 14 is 3 marks)

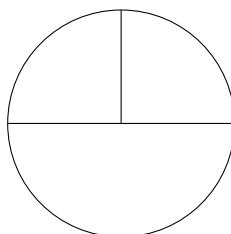
15. 1.8kg of potatoes and 3kg of carrots cost a total of £3.42
 2kg of carrots cost £1.40
 Sophie has £3
 She wants to buy 5kg of potatoes.
 Does Sophie have enough money to buy 5kg of potatoes?
 You must show how you get your answer.

(Total for Question 15 is 5 marks)

16. There are three different types of fruit in a box.
 The table gives the number of each type of fruit.

Type of fruit	Number of fruit
Apples	120
Oranges	80
Bananas	80

David draws this pie chart for the information in the table.



Box of fruit

Write down two different things that are wrong or misleading with this pie chart.

1

2

(Total for Question 16 is 2 marks)

17. (a) Write 52847 correct to 3 significant figures.

.....

(1)

(b) Work out $\frac{(4.1+2.8) \times 3.6}{6.2-1.4}$

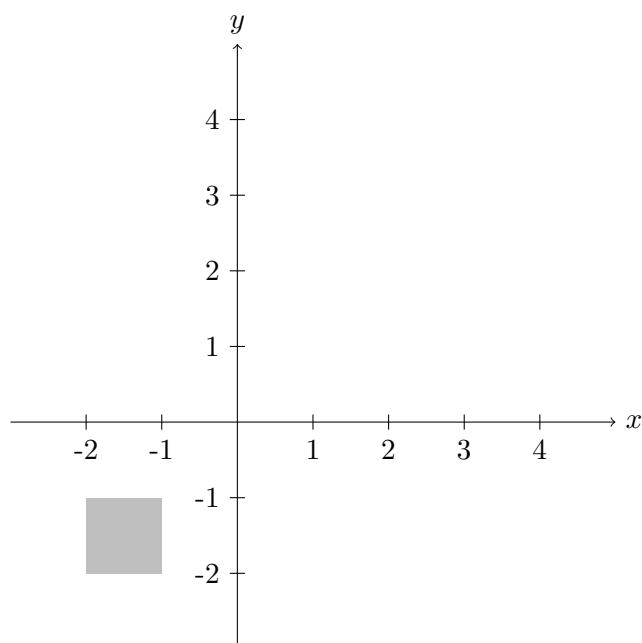
Give your answer as a decimal.

.....

(2)

(Total for Question 17 is 3 marks)

18.



Rotate the shaded shape 90° clockwise about (0,0)

(Total for Question 18 is 2 marks)

19. Here are the first four terms of a sequence.

4, 9, 14, 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 marbles, 8 blue marbles and 2 green marbles.

A marble is chosen at random from the bag.

(a) Write down the probability that the marble is blue.

.....

(1)

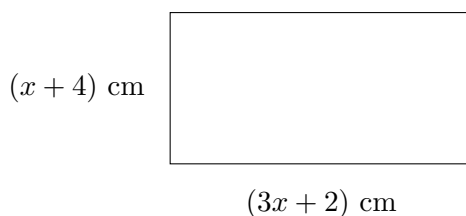
(b) Write down the probability that the marble is not green.

.....

(2)

(Total for Question 20 is 3 marks)

21. The diagram shows a rectangle with length $(3x + 2)$ cm and width $(x + 4)$ cm.



The area of the rectangle is 65 cm^2 .

(a) Show that $3x^2 + 14x + 8 = 65$

(1)

(b) Solve $3x^2 + 14x + 8 = 65$ to find the value of x .

$x =$

(3)

(Total for Question 21 is 4 marks)

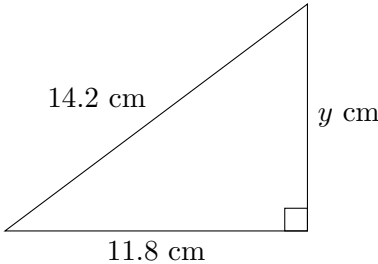
22. The table shows information about the times taken by 50 people to complete a puzzle.

Time, t (minutes)	Frequency
$8 \leq t < 12$	6
$12 \leq t < 16$	12
$16 \leq t < 20$	18
$20 \leq t < 24$	10
$24 \leq t < 28$	4

Calculate an estimate for the mean time.

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

23. Here is a right-angled triangle.



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

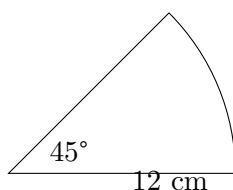
$y =$ cm
 (Total for Question 23 is 3 marks)

24. Michael invests £7200 at 3.5% 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 12 cm and angle 45° .



Calculate the arc length of the sector.
Give your answer in terms of π .

..... cm

(Total for Question 25 is 3 marks)

26. The population of a town was 18000 in 2020.
The population increased by 8% in 2021 and decreased by 12% in 2022.
Work out the population at the end of 2022.

.....

TOTAL FOR PAPER IS 80 MARKS

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