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**GCSE Mathematics**  
**Paper 2 (Calculator)**  
**Foundation Tier**

Paper Reference: **GFP2.5**

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  $\frac{3}{5}$  as a decimal.

.....

(Total for Question 1 is 1 mark)

- 2.** Round 2847 to the nearest 1000.

.....

(Total for Question 2 is 1 mark)

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

18    22    15    20    17    19    21

Write down the mean.

.....

(Total for Question 3 is 1 mark)

- 4.** Change 720 minutes into hours.

..... hours

(Total for Question 4 is 1 mark)

- 5.** Here are four number cards:

9	2	7	4
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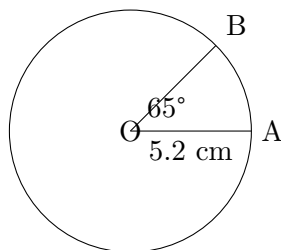
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Use each card once to make the largest possible 4-digit even number.

.....

(Total for Question 5 is 1 mark)

6. The diagram shows a circle with centre O.



(a) Write down the radius of the circle.

..... cm

(1)

(b) Write down the size of angle OBA.

.....°

(1)

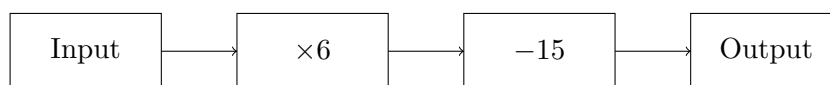
(Total for Question 6 is 2 marks)

7. Lucy buys 4 cakes at £2.15 each and 3 drinks at £1.40 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 7.

.....

(2)

(b) Work out the input when the output is 33.

.....

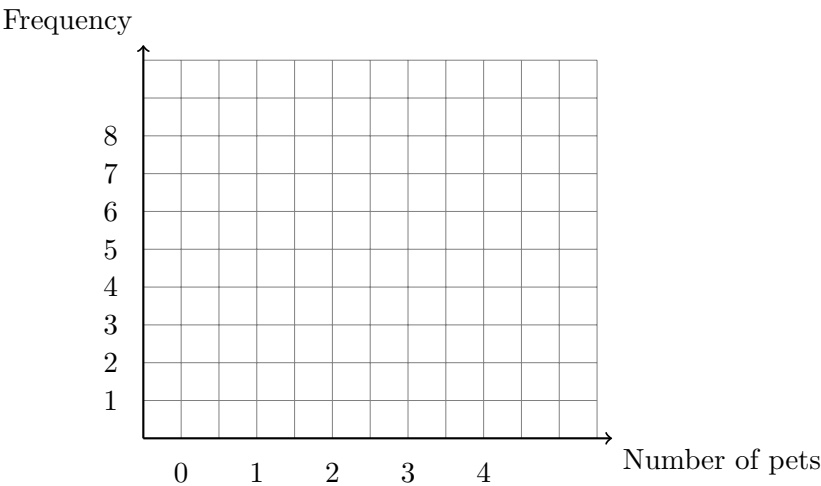
(2)

(Total for Question 8 is 4 marks)

9. The table shows the number of pets owned by 20 families.

Number of pets	Frequency
0	5
1	8
2	4
3	2
4	1

Draw a bar chart for this information.

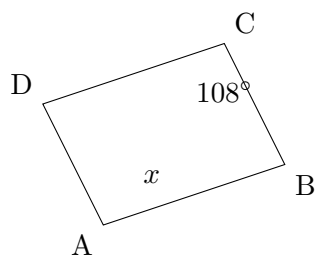


(Total for Question 9 is 3 marks)

10. A washing machine costs £420.  
In a sale, the price is reduced by 25%.  
Work out the sale price.

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

11. The diagram shows a rhombus ABCD.



Work out the value of  $x$ .

$x =$  .....<sup>°</sup>  
(Total for Question 11 is 2 marks)

12. (a) Work out  $\frac{3}{7} \times 84$

.....

(2)

(b) Work out  $6\frac{1}{2} + 3\frac{3}{8}$

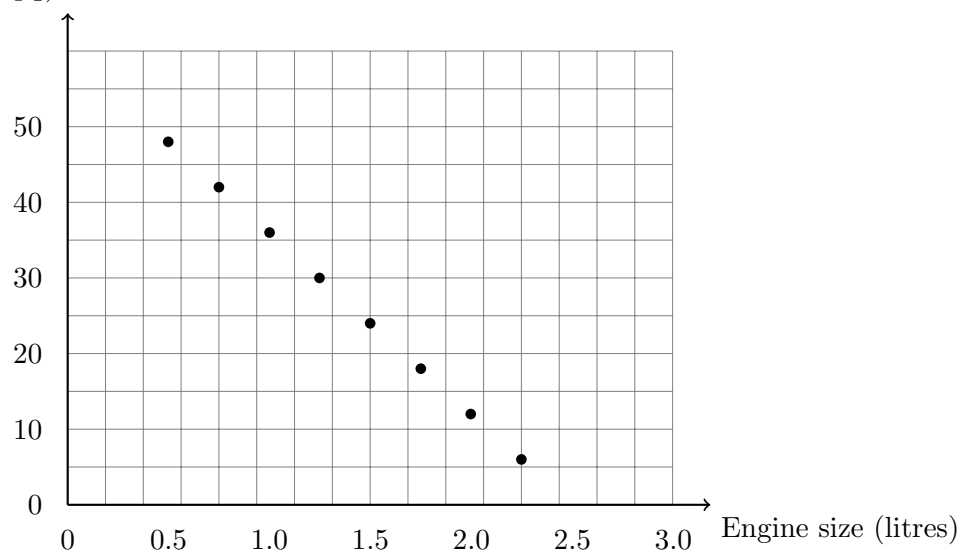
.....

(3)

(Total for Question 12 is 5 marks)

**13.** The scatter graph shows information about the engine size and fuel consumption of 8 cars.

Fuel consumption (mpg)



(a) Describe the relationship between engine size and fuel consumption.

.....

(1)

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

(1)

(c) Use your line of best fit to estimate the fuel consumption for a car with a 2.2 litre engine.

..... mpg

(1)

(Total for Question 13 is 3 marks)

**14.** (a) Simplify  $9k + 4j - 3k - 2j$

.....

(2)

(b) Solve  $7w - 12 = 30$

$w =$  .....

(2)

(Total for Question 14 is 4 marks)

**15.** Here are the distances, in km, that 20 people travel to work:  
 8, 12, 5, 15, 9, 7, 11, 14, 6, 13, 10, 16, 8, 12, 9, 18, 7, 11, 14, 10  
 (a) Complete the frequency table.

Distance (km)	Frequency
5-7	
8-10	
11-13	
14-16	
17-19	

(2)  
 (b) Find the median distance.

..... km

(2)  
 (Total for Question 15 is 4 marks)

**16.** A map has a scale of 1 : 50000.  
 The distance between two towns on the map is 8.5 cm.  
 Work out the real distance between the towns. Give your answer in kilometres.

..... km

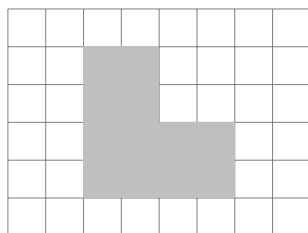
(Total for Question 16 is 3 marks)

**17.** Work out 18% of 350

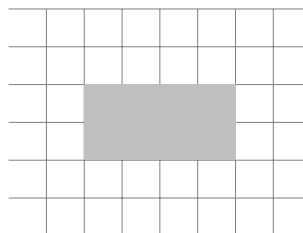
£ .....

(Total for Question 17 is 2 marks)

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

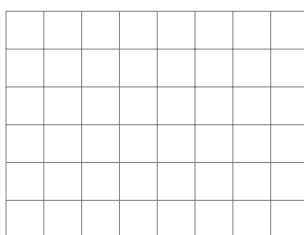


Front elevation



Plan

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



(Total for Question 18 is 2 marks)

19. The first four terms of a sequence are:

6, 10, 14, 18, ...

(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)



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**20.** A bag contains 7 red marbles, 5 blue marbles and 3 green marbles.

A marble is chosen at random from the bag.

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

.....

(1)

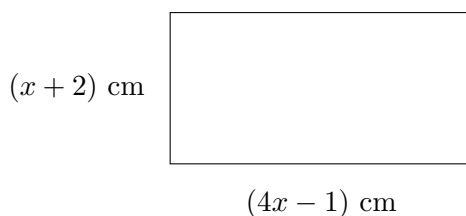
(b) Write down the probability that the marble is not green.

.....

(2)

(Total for Question 20 is 3 marks)

**21.** The diagram shows a rectangle with length  $(4x - 1)$  cm and width  $(x + 2)$  cm.



The area of the rectangle is  $90 \text{ cm}^2$ .

(a) Show that  $4x^2 + 7x - 2 = 90$

(1)

(b) Solve  $4x^2 + 7x - 2 = 90$  to find the value of  $x$ .

$x =$  .....

(3)

(Total for Question 21 is 4 marks)

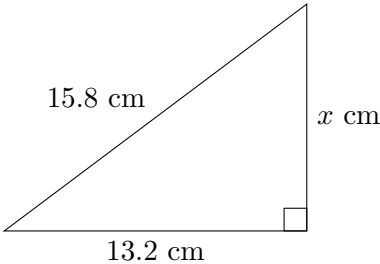
**22.** The table shows information about the times taken by 60 people to complete a puzzle.

Time, $t$ (minutes)	Frequency
$5 \leq t < 10$	8
$10 \leq t < 15$	15
$15 \leq t < 20$	22
$20 \leq t < 25$	12
$25 \leq t < 30$	3

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  $x$ . Give your answer correct to 1 decimal place.

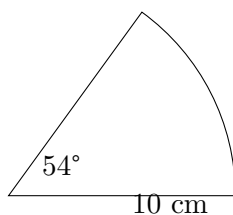
$x =$  .....cm  
 (Total for Question 23 is 3 marks)

- 
- 24.** Sarah invests £6400 at 2.5% compound interest per year.  
Work out the value of her investment after 4 years.

£ .....

(Total for Question 24 is 3 marks)

- 25.** The diagram shows a sector of a circle with radius 10 cm and angle  $54^\circ$ .



Calculate the arc length of the sector. Give your answer in terms of  $\pi$ .

..... cm

(Total for Question 25 is 3 marks)

- 26.** The population of a village was 2400 in 2018.  
The population increased by 5% in 2019 and decreased by 8% in 2020.  
Work out the population at the end of 2020.

.....

(Total for Question 26 is 3 marks)

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**TOTAL FOR PAPER IS 80 MARKS**

**Educational mathematics resources:  
[stepupmaths.co.uk](http://stepupmaths.co.uk)**