CALC D

GCSE Mathematics · Foundation Tier

40 marks · 45 minutes · Calculator

Name ..... **Class** .....

Answer all questions. Show all your working. Calculators may be used. Diagrams are NOT accurately drawn.

1 Work out the cube root of 74.088

.....

(Total for Question 1 is 1 mark)

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2 **(a)** Round 0.004872 to 2 significant figures.

.....

(1)

(b) Round 38 649 to the nearest thousand.

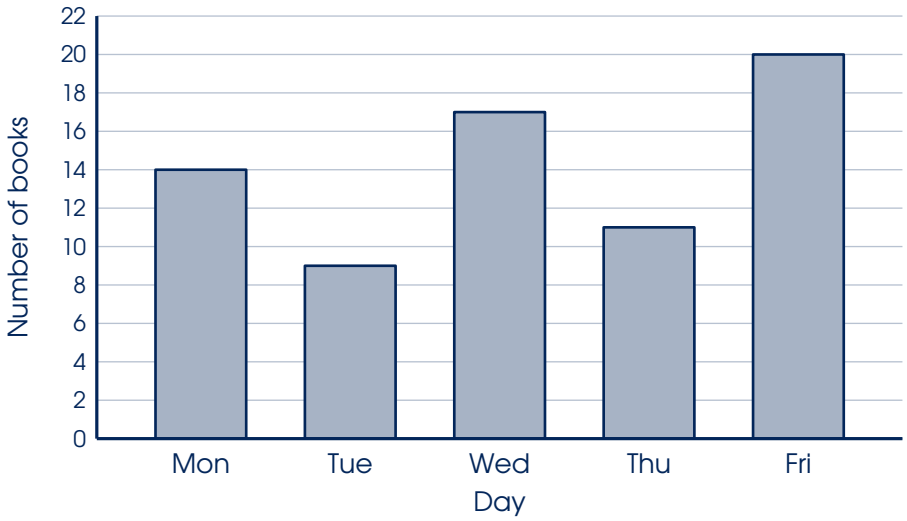
.....

(1)

(Total for Question 2 is 2 marks)

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3 The bar chart shows the number of books borrowed from a library one week.



(a) On which day were the fewest books borrowed?

.....

(1)

(b) What fraction of the books borrowed that week were borrowed on Friday?

.....

(1)

(Total for Question 3 is 2 marks)

4 Jen mixes blue paint and white paint in the ratio 2 : 7

She uses 4.5 litres of blue paint.

How much white paint does she use?

..... litres

(Total for Question 4 is 2 marks)

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5 **(a)** Expand $3x(x - 4)$

.....

(1)

(b) Factorise fully $12p - 18$

.....

(2)

(Total for Question 5 is 3 marks)

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6 Leah works from 9 15 am to 4 45 pm, five days a week.

Each day she has a 45-minute lunch break. She is not paid for her lunch break.

Leah is paid £11.44 per hour.

Work out how much Leah is paid for one week.

£.....

(Total for Question 6 is 3 marks)

7

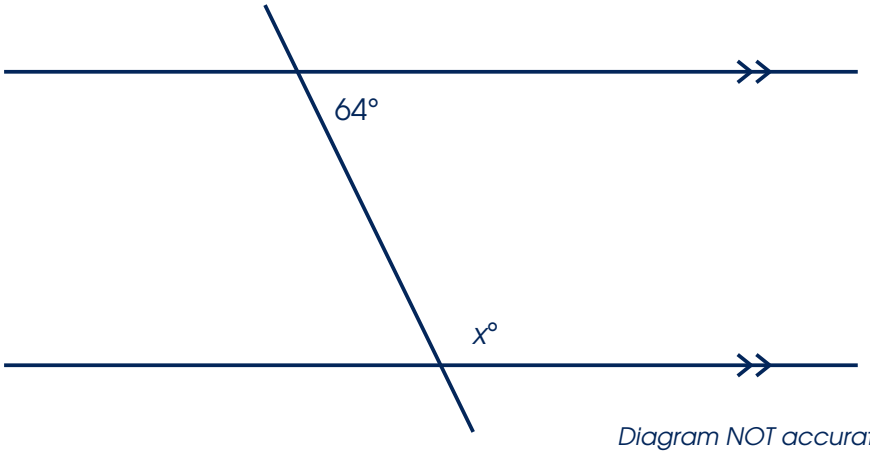


Diagram NOT accurately drawn

The diagram shows two parallel lines crossed by a straight line.

(a) Work out the value of x.

$x =$ .....

(1)

(b) Give a reason for your answer.

.....

(1)

(Total for Question 7 is 2 marks)

8 A dice is biased. The probability that it lands on 6 is 0.24

(a) Work out the probability that the dice does not land on 6

.....

(1)

Asha is going to throw the dice 150 times.

(b) Work out an estimate for the number of times the dice will land on 6

.....

(2)

(Total for Question 8 is 3 marks)

9 Work out $(2.4 \times 10^6) \times (5 \times 10^3)$

Give your answer in standard form.

.....

(Total for Question 9 is 2 marks)

10 The diagram shows a rectangle. All measurements are in centimetres.

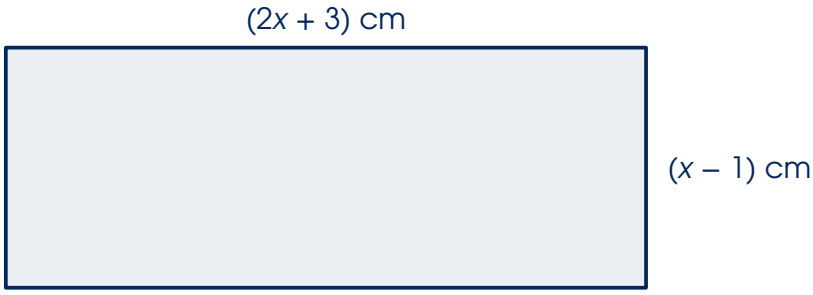


Diagram NOT accurately drawn

The perimeter of the rectangle is 37 cm.

Work out the area of the rectangle.

..... cm^2

(Total for Question 10 is 4 marks)

11 The diagram shows a cylinder.

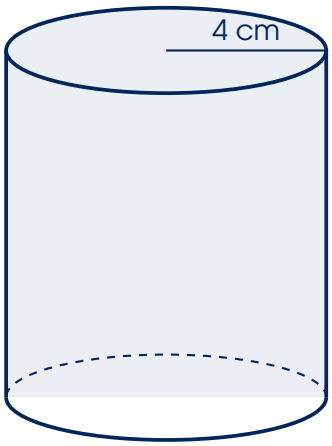


Diagram NOT accurately drawn

Work out the volume of the cylinder. Give your answer correct to 3 significant figures.

..... cm^3

(Total for Question 11 is 2 marks)

12 The nth term of a sequence is $5n - 8$

(a) Write down the first three terms of the sequence.

.....

(1)

(b) Which term of the sequence has the value 117?

.....

(2)

(Total for Question 12 is 3 marks)

13 The table shows information about the times 30 people took to complete a puzzle.

Time (t minutes)	Frequency
$0 < t \leq 10$	4
$10 < t \leq 20$	9
$20 < t \leq 30$	12
$30 < t \leq 40$	5

Work out an estimate for the mean time.

..... minutes

(Total for Question 13 is 3 marks)

14

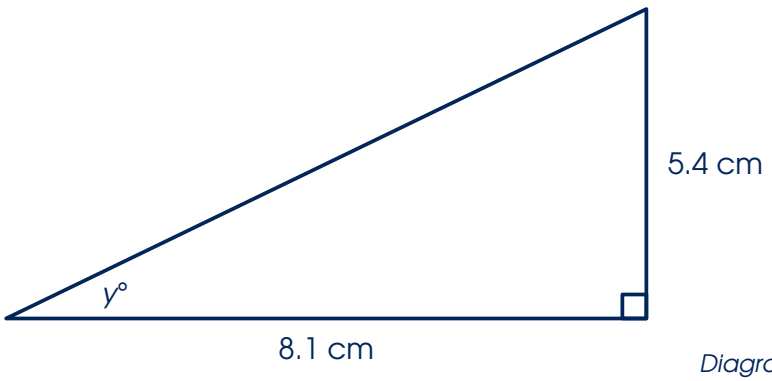


Diagram NOT accurately drawn

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

$y =$ .....

(Total for Question 14 is 2 marks)

15 It takes 6 builders 15 days to build a wall.
The manager needs the wall built in 10 days.
Each builder works at the same rate.
How many extra builders does the manager need?

.....

(Total for Question 15 is 3 marks)

16 Ellie buys a van for £18 000. The value of the van falls by 15% each year.
Ellie says, "After 3 years the van will be worth less than half of what I paid for it."
Is Ellie correct? You must show all your working.

(Total for Question 16 is 3 marks)

TOTAL FOR PAPER IS 40 MARKS