NON-CALC G

GCSE Mathematics · Foundation Tier

40 marks · 45 minutes · Non-calculator

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

Answer all questions. Show all your working. Diagrams are NOT accurately drawn unless stated.

1 **(a)** Write down the value of $\sqrt{81}$

.....

(1)

(b) Work out 4^3

.....

(1)

(Total for Question 1 is 2 marks)

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2 Write down the mathematical name of a quadrilateral with exactly one pair of parallel sides.

.....

(Total for Question 2 is 1 mark)

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3 $T = 5k - 2m$

Work out the value of T when $k = 3$ and $m = -4$

$T =$ .....

(Total for Question 3 is 2 marks)

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4 Work out 35% of 260

.....

(Total for Question 4 is 2 marks)

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5 The stem and leaf diagram shows the times, in minutes, that 15 students took to walk to school.

1	2 5 8
2	0 3 3 7 9
3	1 4 6 6
4	0 2 5

Key: 1 | 2 means 12 minutes

(a) Find the median time.

..... minutes

(1)

(b) Work out the range of the times.

..... minutes

(1)

(c) What fraction of the students took more than 30 minutes?

.....

(1)

(Total for Question 5 is 3 marks)

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6 **(a)** Write 34 000 in standard form.

.....

(1)

(b) Write 6×10^{-3} as an ordinary number.

.....

(1)

(Total for Question 6 is 2 marks)

7 **(a)** On the number line below, show the inequality $-2 < x \leqslant 3$



(2)

n is an integer.

(b) Write down all the values of n such that $-2 < n \leqslant 3$

.....

(1)

(Total for Question 7 is 3 marks)

8 A spinner can land on red, blue, green or yellow.

The table shows some of the probabilities that the spinner will land on each colour.

Colour	Red	Blue	Green	Yellow
Probability	0.35	0.25		

The probability that the spinner lands on green is the same as the probability that it lands on yellow.

(a) Work out the probability that the spinner lands on green.

.....

(2)

Ellie spins the spinner 80 times.

(b) Work out an estimate for the number of times the spinner lands on red.

.....

(1)

(Total for Question 8 is 3 marks)

9 5 notebooks cost £3.60

Lucy has £6. She wants to buy 8 of these notebooks.

Does Lucy have enough money?

You must show all your working.

(Total for Question 9 is 3 marks)

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10 **(a)** Work out an estimate for $\frac{51.3 \times 4.08}{0.19}$

.....

(2)

(b) Is your answer to part (a) an overestimate or an underestimate?

Give a reason for your answer.

.....

.....

(1)

(Total for Question 10 is 3 marks)

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11 Here is a triangle.

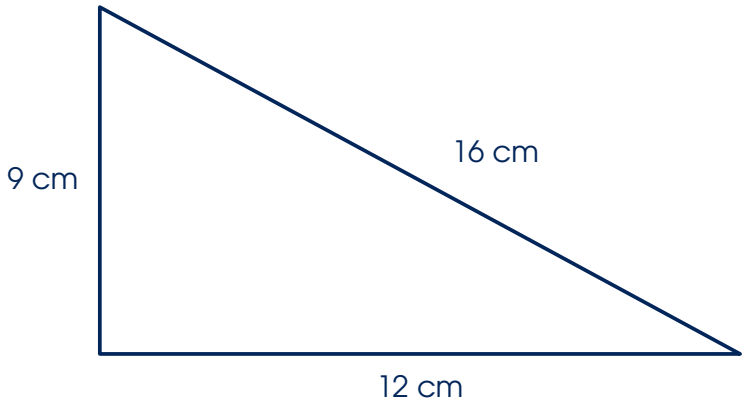


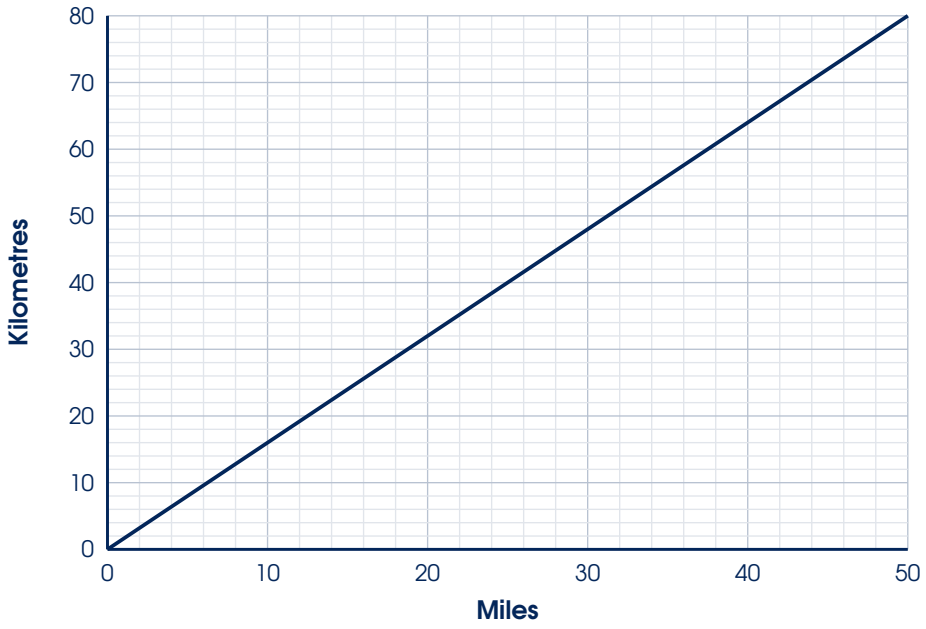
Diagram NOT accurately drawn

Mo says, "This triangle is a right-angled triangle."

Is Mo correct? You must show all your working.

(Total for Question 11 is 3 marks)

12 You can use this graph to change between miles and kilometres.



(a) Use the graph to change 25 miles to kilometres.

..... km

(1)

Ella drives 120 miles. Finn drives 200 kilometres.

(b) Who drives the greater distance? You must show how you get your answer.

(2)

(Total for Question 12 is 3 marks)

13 A blue bus leaves a bus station every 12 minutes.

A red bus leaves the same bus station every 18 minutes.

A blue bus and a red bus both leave the bus station at 8:15 am.

When will a blue bus and a red bus next leave the bus station at the same time?

.....

(Total for Question 13 is 3 marks)

14 The diagram shows a fish tank in the shape of a cuboid.

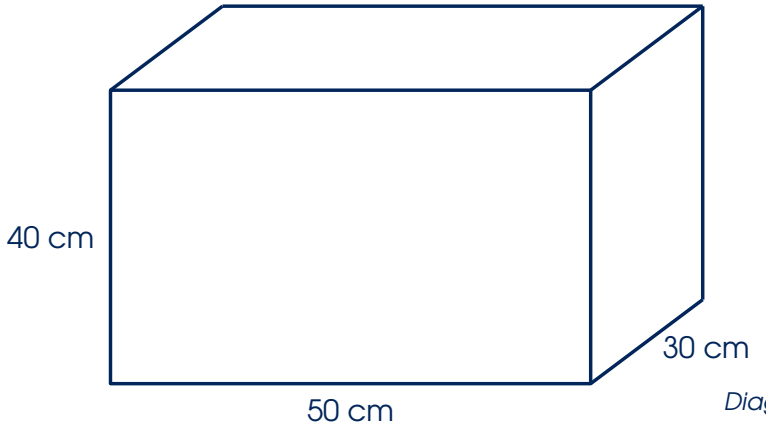


Diagram NOT accurately drawn

The tank is empty. Water flows into the tank at a rate of 3 litres per minute.

1 litre = 1000 cm^3

How many minutes will it take to fill the tank until it is $\frac{3}{4}$ full?

..... minutes

(Total for Question 14 is 4 marks)

15 Sam, Tia and Uma share some sweets.

Sam gets $\frac{2}{5}$ of the sweets.

Tia and Uma share the rest of the sweets in the ratio 1 : 2

Uma gets 36 sweets.

How many sweets were there altogether?

.....

(Total for Question 15 is 3 marks)

TOTAL FOR PAPER IS 40 MARKS