Day 304 **C Tier 10-a-day: Model Solutions**

1 Names of polygons

How many sides does a decagon have?

A decagon has 10 sides

Answer: 10

2 Fractions of a shape

What fraction of the shape is shaded?

There are 10 equal parts

3 parts are shaded

Fraction shaded = $\frac{3}{10}$

Answer: $\frac{3}{10}$

3 Perimeter of a rectangle

A rectangular table top is 7 cm long and 6 cm wide.
Work out the perimeter.

Add up all four sides

7 + 6 + 7 + 6 = 26

Answer: 26 cm

4 Powers

Write 2 × 2 as a power of 2.

2 is multiplied by itself 2 times

Answer: 2^2

5 Translating a point

The point A has coordinates (−3, −3).
A is moved 3 left and 3 up.
Write down the coordinates of the new point.

x-coordinate: −3 − 3 = −6

y-coordinate: −3 + 3 = 0

Answer: (−6, 0)

6 Money: wages

Grace earns £12 for each hour of work.
Grace works for 4 hours.
How much does Grace earn?

£12 × 4 = £48

Answer: £48

7 Time from distance and speed

A car travels 40 miles at 10 mph.
How long does the journey take?

Time = distance ÷ speed

40 ÷ 10 = 4

Answer: 4 hours

8 Equations of lines

A straight line passes through the points
(2, 2), (2, 7), (2, 8)
Write down the equation of the line.

Every point has x-coordinate 2, so the line is vertical

Answer: x = 2

Day 304 **C Tier 10-a-day: Model Solutions**

9 Finding a missing value from the mean

The mean of four numbers is 8.
Three of the numbers are 6, 16 and 1.
Work out the other number.

Total of all the numbers: 8 × 4 = 32
Total of those given: 6 + 16 + 1 = 23
32 − 23 = 9
Answer: 9

10 Sequences

Here are the first four terms of a sequence.
9, 15, 21, 27
Is 51 a term in this sequence?
You must show your working.

The terms go up by 6 each time
Continue the sequence: 9, 15, 21, 27, 33, 39, 45, 51, 57
51 is in the list
Answer: Yes