Day 125 **C Tier 10-a-day: Model Solutions**

1 The median

Here are the shoe sizes of some students.
5 4 6 4 8 5 3 8 8
Work out the median.

Put the numbers in order: 3 4 4 5 5 6 8 8 8
The middle number is 5
Answer: 5

2 Solving equations

Solve 9d = 99

9d means 9 × d, so divide both sides by 9
d = 99 ÷ 9 = 11
Answer: d = 11

3 Money

A packet of crisps costs 64p.
Work out the cost of 3 packets.
Give your answer in pounds.

64p × 3 = 192p
192p = £1.92
Answer: £1.92

4 Function machines

Here is a function machine.
Work out the output when the input is 12.

12 × 3 = 36
36 − 7 = 29
Answer: 29

5 Area on a square grid

The diagram shows a shape drawn on a square grid.
Each square has an area of 1 m^2.
Work out the area of the shape.

Count the squares in the shape.
Split into two rectangles: 4 × 4 = 16 and 2 × 1 = 2
16 + 2 = 18
Answer: 18 m^2

6 Distance from speed and time

A cyclist travels at 12 km/h for 6 hours.
How far does it travel?

Distance = speed × time
12 × 6 = 72
Answer: 72 km

7 Number puzzles

I think of a number.
I divide it by 5.
My answer is 14.
What number did I think of?

Work backwards: multiply by 5
14 × 5 = 70
Answer: 70

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8 Duration of a journey

A bus leaves at 6:20 am and arrives at 7:35 am.
How long does the journey take?

Count on from 6:20 am to 7:35 am:
40 minutes to 7:00 am
35 minutes to 7:35 am
Total: 1 hour 15 minutes
Answer: 1 hour 15 minutes

9 Pie chart angles

120 students were asked about their way of travelling to school.
6 of them walk to school.
The results are shown in a pie chart.
Work out the angle of the sector for those students.

360° ÷ 120 = 3° for each student
6 × 3° = 18°
Answer: 18°

10 Powers

Write 3 × 3 × 3 × 3 as a power of 3.

3 is multiplied by itself 4 times
Answer: 3^4