Day 61 **C Tier 10-a-day: Model Solutions**

1 Reading a table

The table shows the pets owned by some students.
How many students are there in total?

16 + 8 + 13 + 10 = 47
Answer: 47

2 Angles on a straight line

Two lines meet on a straight line.
Work out the size of angle y.
The diagram is not drawn accurately.

Angles on a straight line add up to 180°
180 − 100 = 80
Answer: y = 80°

3 Rounding money

Round £7.67 to the nearest pound.

Look at the pence: 67 p
50p or more, so round up
Answer: £8

4 Proportion

6 pens cost 60p.
Work out the cost of 3 pens.

Cost of one pen: 60p ÷ 6 = 10p
10p × 3 = 30p
Answer: 30p

5 Rounding decimals

Round 7.3 to the nearest whole number.

Look at the first decimal digit, which is 3
3 is less than 5, so round down
Answer: 7

6 Map scales

On a map, 1 cm represents 5 km.
On the map, two towns are 9 cm apart.
Work out the real distance between the towns.

1 cm represents 5 km
9 × 5 = 45
Answer: 45 km

7 The nth term

The nth term of a sequence is 6n − 4.
Write down the first three terms of the sequence.

Put n = 1, 2, 3 into 6n − 4
6 × 1 − 4 = 2
6 × 2 − 4 = 8
6 × 3 − 4 = 14
Answer: 2, 8, 14

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8 Probabilities add up to 1

A bag has four colours.
The table shows the probability of each colour.
The probabilities add up to 1.
Work out the missing probability.

Add the known probabilities: 0.35 + 0.05 + 0.3 = 0.7
1 − 0.7 = 0.3
Answer: 0.3

9 Cost from area

A rectangular floor is 6 m long and 3 m wide.
Carpet costs £12 per m^2.
Work out the cost of covering the floor.

Area = 6 × 3 = 18 m^2
Cost = 18 × £12 = £216
Answer: £216

10 Expressions for perimeter

A square has sides of length b cm.
Write an expression for the perimeter of the shape.
Give your answer in its simplest form.

Perimeter = b + b + b + b
= 4b
Answer: 4b cm