Day 339 **C Tier 10-a-day: Model Solutions**

1 Subtraction

Work out 435 − 253.

435 − 253 = 182

Answer: 182

2 Sequences

Here are the first four terms of a sequence.
11, 13, 15, 17
Write down the next term.

The terms go up by 2 each time
17 + 2 = 19
Answer: 19

3 Midpoint of a line

A is the point (−1, 2).
B is the point (−1, 4).
Work out the coordinates of the midpoint of AB.

Find the number halfway between the x-coordinates: (−1 + −1) ÷ 2 = −1
Find the number halfway between the y-coordinates: (2 + 4) ÷ 2 = 3
Answer: (−1, 3)

4 Fractions of a group

A team plays 25 matches and wins 10 of them.
What fraction of the matches did the team win? Give your answer in its simplest form.

$\frac{10}{25}$

Divide top and bottom by 5: $\frac{2}{5}$

Answer: $\frac{2}{5}$

5 Multiplying multiples of 10

Work out 80 × 20.

Work out 8 × 2 = 16
Then put the zeros back on
Answer: 1600

6 Reading a pie chart

44 people were asked about their favourite sport.
The pie chart shows the results.
How many people chose Hockey?

The Hockey sector is a quarter of the pie chart
44 ÷ 4 = 11
Answer: 11

7 Tables of values

Complete the table of values for y = 4x + 1.

When x = 3: y = 4 × 3 + 1 = 13
When x = 4: y = 4 × 4 + 1 = 17
Answer: x = 3: y = 13; x = 4: y = 17

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8 Cost from area

A rectangular patio is 5 m long and 2 m wide.
Paving costs £6 per m^2.
Work out the cost of covering the patio.

Area = 5 × 2 = 10 m^2
Cost = 10 × £6 = £60
Answer: £60

9 The nth term

The nth term of a sequence is 2n.
Write down the first three terms of the sequence.

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

10 Order of operations

Work out 2 × 5 + 6.

Multiply first
2 × 5 = 10
10 + 6 = 16
Answer: 16