Day 38 **C Tier 10-a-day: Model Solutions**

1 Sequences

Here are the first four terms of a sequence.
18, 21, 24, 27
Write down the next term.

The terms go up by 3 each time
27 + 3 = 30
Answer: 30

2 The range

Here are the marks in a test.
8 11 4 12 3 15
Work out the range.

Range = largest value − smallest value
15 − 3 = 12
Answer: 12

3 Solving equations

Solve $\frac{x}{8} = 2$

$\frac{x}{8}$ means x ÷ 8, so multiply both sides by 8
x = 2 × 8 = 16
Answer: x = 16

4 Metric units

Change 8 litres to millilitres.

1 litre = 1000 ml
8 × 1000 = 8000
Answer: 8000 ml

5 Choosing units

Which unit is best for measuring the thickness of a coin?
Choose from: mm, cm, m, km

A coin is only a few millimetres thick
So the best unit is mm
Answer: mm

6 Two-way tables

The two-way table shows some information.
Work out the missing number, shown by ?

The row total is 27 and the other number is 10
27 − 10 = 17
Answer: 17

7 Bearings from compass points

Bearings are measured clockwise from north.
Write down the three-figure bearing of
(a) south-east
(b) south

North is 000°. Each compass point to the right (clockwise) is a further 45°.
(a) south-east is 135°
(b) south is 180°
Answer: (a) 135° (b) 180°

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8 Timetables

The table shows the times of two buses.
How many minutes does Bus 2 take to go from Derby to Leeds?

11:20 − 10:55
Count on from 10:55 to 11:20
Answer: 25 minutes

9 The nth term

The nth term of a sequence is 5n + 3.
Work out the 7th term of the sequence.

Put n = 7 into 5n + 3
5 × 7 + 3 = 38
Answer: 38

10 Multiples: smallest common

Find the smallest number that is a multiple of both 3 and 8.

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24
Multiples of 8: 8, 16, 24
24 is in both lists
Answer: 24