Day 34 **C Tier 10-a-day: Model Solutions**

1 Place value

Write down the value of the digit 5 in the number 58,310.

The digit 5 is in the ten thousands column
5 × 10000 = 50000
Answer: 50,000

2 Choosing units

Which unit is best for measuring the mass of a paperclip?
Choose from: g, kg, tonnes

A paperclip is very light, about 1 gram
So the best unit is g
Answer: g

3 The median

Here are the numbers of books read by some students.
6 1 3 4 7
Work out the median.

Put the numbers in order: 1 3 4 6 7
The middle number is 4
Answer: 4

4 Substitution

Work out the value of $\frac{k}{8}$ when k = 64.

$\frac{k}{8}$ means k ÷ 8
64 ÷ 8 = 8
Answer: 8

5 Stem and leaf diagrams

The stem and leaf diagram shows the times, in seconds, taken by runners.
Write down the smallest value.

The first row has the smallest stem and the first leaf is the smallest
21
Answer: 21

6 Bearings from compass points

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

North is 000°. Each compass point to the right (clockwise) is a further 45°.
(a) east is 090°
(b) north-west is 315°
Answer: (a) 090° (b) 315°

7 Adding fractions

Work out $\frac{2}{5} - \frac{1}{5}$.

The denominators are the same, so subtract the numerators
2 − 1 = 1
Answer: $\frac{1}{5}$

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8 Perimeter from area

A rectangular garden has an area of 56 m^2.
Its width is 4 m.
Work out the perimeter of the garden.

Length = area ÷ width = 56 ÷ 4 = 14
Perimeter = 14 + 4 + 14 + 4 = 36
Answer: 36 m

9 Sequences

Here are the first four terms of a sequence.
1, 4, 5, 9
Each term is found by adding the two terms before it.
Write down the next two terms.

5 + 9 = 14
9 + 14 = 23
Answer: 14, 23

10 Division in context

Each van holds 25 people.
82 people need a lift.
How many vans are needed?

82 ÷ 25 = 3 remainder 7
The extra people need another van
Answer: 4