Day 119 **C Tier 10-a-day: Model Solutions**

1 Writing numbers in words

Write the number 8000 in words.

Split the number: 8000

Answer: eight thousand

2 The range

Here are the marks in a test.
13 8 18 5 9 13
Work out the range.

Range = largest value − smallest value
18 − 5 = 13
Answer: 13

3 Compass directions and turns

Priya is facing north.
Priya turns 270° clockwise.
Which direction is Priya facing now?

270° is 3 quarter turns
Turning clockwise from north: north → east → south → west
Answer: west

4 Ordering fractions

Write these fractions in order, starting with the largest.
$\frac{3}{8}, \frac{7}{8}, \frac{1}{8}$

The denominators are all 8, so compare the numerators
7, 3, 1 (numerators in order)
Answer: $\frac{7}{8}, \frac{3}{8}, \frac{1}{8}$

5 Simplifying expressions

Simplify 2z + q + 2z + 3q

Collect the q terms: 1 + 3 = 4q
Collect the z terms: 2 + 2 = 4z
Answer: 4q + 4z

6 Ordering decimals

Write these numbers in order, starting with the smallest.
0.25, 0.15, 0.3, 0.2

Write each with the same number of decimal places
0.15, 0.20, 0.25, 0.30
Answer: 0.15, 0.2, 0.25, 0.3

7 Probabilities add up to 1

A game uses a four-coloured spinner.
The table shows the probability of each colour.
The probabilities add up to 1.
Work out the missing probability.

Add the known probabilities: 0.15 + 0.4 + 0.35 = 0.9
1 − 0.9 = 0.1
Answer: 0.1

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8 Inequalities

n is a whole number.
Write down all the possible values of n when
$-3 \leq n \leq 2$

n is at least −3 and at most 2
The smallest whole number is −3 and the largest is 2
Answer: −3, −2, −1, 0, 1, 2

9 Cost from area

A rectangular floor is 9 m long and 7 m wide.
Carpet costs £10 per m^2.
Work out the cost of covering the floor.

Area = 9 × 7 = 63 m^2
Cost = 63 × £10 = £630
Answer: £630

10 Cost of one item

3 tickets cost £1.95.
Work out the cost of one ticket.

195p ÷ 3 = 65p
Answer: 65p