Day 162 **C Tier 10-a-day: Model Solutions**

1 Perimeter of a regular polygon

The perimeter of a regular hexagon is 66 mm.
Work out the length of one side.

A regular hexagon has 6 equal sides
66 ÷ 6 = 11
Answer: 11 mm

2 Reading a table

The table shows the number of visitors each day.
Work out the total number of visitors on Monday and Thursday.

Monday: 30, Thursday: 21
30 + 21 = 51
Answer: 51

3 Pay rates

Grace is paid £6 for each hour of work.
Grace works for 2 hours.
How much is Grace paid?

£6 × 2 = £12
Answer: £12

4 Collecting like terms

Simplify 6h + 4h

All the terms are in h, so just add or subtract the numbers in front of h
Answer: 10h

5 Distance from speed and time

A train travels at 70 mph for 4 hours.
How far does it travel?

Distance = speed × time
70 × 4 = 280
Answer: 280 miles

6 Volume by counting cubes

A toy box holds 1 cm cubes in layers.
Each layer is 3 cubes long and 3 cubes wide.
There are 3 layers.
How many cubes are there altogether?

Cubes in one layer: 3 × 3 = 9
Number of layers: 3
9 × 3 = 27
Answer: 27 cubes

7 Simplifying fractions

Write $\frac{15}{40}$ in its simplest form.

Divide the top and bottom by 5
$\frac{15}{40} = \frac{3}{8}$
Answer: $\frac{3}{8}$

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8 Number puzzles

Hugo thinks of a number.
Hugo adds 2.
The answer is 38.
What number did Hugo think of?

Subtract 2 from 38
38 − 2 = 36
Answer: 36

9 Subtracting decimals

Work out 5.7 − 3.1.

Line up the decimal points
5.7 − 3.1 = 2.6
Answer: 2.6

10 Pie chart angles

72 students were asked about their favourite subject.
15 of them chose science.
The results are shown in a pie chart.
Work out the angle of the sector for those students.

360° ÷ 72 = 5° for each student
15 × 5° = 75°
Answer: 75°