Day 342 **C Tier 10-a-day: Model Solutions**

1 Cost of several items

A pen costs 7p.
Work out the cost of 5 pens.

7p × 5 = 35p
Answer: 35p

2 Radius and diameter

The radius of a pond is 8 mm.
Work out the diameter.

The diameter is twice the radius
2 × 8 = 16
Answer: 16 mm

3 Pay rates

Ella is paid £12 for each hour of work.
Ella works for 9 hours.
How much is Ella paid?

£12 × 9 = £108
Answer: £108

4 Substitution

Work out the value of n^2 when n = 10.

n^2 means n × n
10 × 10 = 100
Answer: 100

5 Fractions of amounts

Work out $\frac{1}{6}$ of £36.

Divide by 6
36 ÷ 6 = 6
Answer: £6

6 Number puzzles

Gita thinks of a number.
Gita divides it by 6.
The answer is 6.
What number did Gita think of?

Multiply 6 by 6
6 × 6 = 36
Answer: 36

7 Perimeter of an L-shape

The diagram shows an L-shape.
All the corners are right angles.
Work out the perimeter of the shape.
The diagram is not drawn accurately.

Find the two missing sides.
Missing horizontal side: 8 − 2 = 6
Missing vertical side: 5 − 3 = 2
Add all six sides: 8 + 3 + 6 + 2 + 2 + 5 = 26
Answer: 26 cm

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8 Percentages of amounts

Work out 1% of 300 people.

1% = $\frac{1}{100}$, so divide by 100

300 ÷ 100 = 3

Answer: 3 people

9 Cost from perimeter

A rectangular field is 10 m long and 4 m wide.
Fencing costs £10 per metre.
Work out the cost of putting fence all the way round the field.

Perimeter = 10 + 4 + 10 + 4 = 28 m

Cost = 28 × £10 = £280

Answer: £280

10 Special sequences

Here are the first four terms of a sequence.
6, 12, 24, 48
Write down the next two terms.

Each term is double the one before

48 × 2 = 96

96 × 2 = 192

Answer: 96, 192