Day 317 **C Tier 10-a-day: Model Solutions**

1 Mass and capacity conversions

Change
(a) 25 litres into cl
(b) 7000 kg into tonnes

(a) 1 litres = 100 cl, so multiply by 100: 25 × 100 = 2500
(b) 1000 kg = 1 tonnes, so divide by 1000: 7000 ÷ 1000 = 7
Answer: (a) 2500 cl (b) 7 tonnes

2 Missing numbers

Find the missing number.
? ÷ 8 = 10

10 × 8 = 80
Answer: 80

3 Function machines

Here is a function machine.
Work out the output when the input is 24.

24 ÷ 4 = 6
6 − 4 = 2
Answer: 2

4 Timetables

The table shows part of a bus timetable.
Sam gets on Bus 2 at Market.
At what time does the bus arrive at Church?

Look along the row for Church and down the Bus 2 column: 10:05
Answer: 10:05

5 Perimeter of a regular polygon

The perimeter of a regular decagon is 50 cm.
Work out the length of one side.

A regular decagon has 10 equal sides
50 ÷ 10 = 5
Answer: 5 cm

6 Special sequences

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

Each term is double the one before
48 × 2 = 96
Answer: 96

7 Best buys

Tins of beans are sold in two packs.
Pack A has 8 and costs 80p.
Pack B has 3 and costs 60p.
Which pack is better value?

Pack A: 80p ÷ 8 = 10p each
Pack B: 60p ÷ 3 = 20p each
Pack A is cheaper per item
Answer: Pack A

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8 Cost from perimeter

A rectangular field is 10 m long and 4 m wide.
Fencing costs £6 per metre.
Work out the cost of putting fence all the way round the field.

Perimeter = 10 + 4 + 10 + 4 = 28 m
Cost = 28 × £6 = £168
Answer: £168

9 Division in context

Each minibus holds 25 people.
92 people need a lift.
How many minibuses are needed?

92 ÷ 25 = 3 remainder 17
The extra people need another minibus
Answer: 4

10 Cost of one item

4 stickers cost 40p.
Work out the cost of one sticker.

40p ÷ 4 = 10p
Answer: 10p