Day 284 **C Tier 10-a-day: Model Solutions**

1 Best buys

Eggs are sold in two packs.
Pack A has 12 and costs £3.60.
Pack B has 3 and costs £1.20.
Which pack is better value?

Pack A: 360p ÷ 12 = 30p each
Pack B: 120p ÷ 3 = 40p each
Pack A is cheaper per item
Answer: Pack A

2 Coordinates

(a) Write down the coordinates of point C.
(b) Which point has coordinates (−3, 1)?

(a) C is right 1 and down 2
(b) Go left 3 and up 1: this is point A
Answer: (a) (1, −2) (b) A

3 Distance from speed and time

A car travels at 40 mph for 5 hours.
How far does it travel?

Distance = speed × time
40 × 5 = 200
Answer: 200 miles

4 Substitution

Work out the value of c − 3 when c = 14.

14 − 3 = 11
Answer: 11

5 Percentages of amounts

Work out 1% of £600.

1% = $\frac{1}{100}$, so divide by 100
600 ÷ 100 = 6
Answer: £6

6 Simplifying expressions

Simplify 6p + 8 − 2p

Letters: 6p − 2p = 4p
Numbers: 8 on its own
Answer: 4p + 8

7 Even and odd numbers

Write down all the even numbers in this list.
29, 71, 16, 57, 17

Even numbers end in 0, 2, 4, 6 or 8
Answer: 16

8 Cost from perimeter

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

Perimeter = 6 + 6 + 6 + 6 = 24 m
Cost = 24 × £4 = £96
Answer: £96

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9 Division in context

Each minibus holds 50 people.
132 people need a lift.
How many minibuses are needed?

132 ÷ 50 = 2 remainder 32
The extra people need another minibus
Answer: 3

10 Enlargement

A rectangle is 7 cm long and 1 cm wide.
It is enlarged by scale factor 3.
Write down the length and the width of the enlarged rectangle.

Multiply each length by 3
7 × 3 = 21
1 × 3 = 3
Answer: length 21 cm, width 3 cm