Day 26 **C Tier 10-a-day: Model Solutions**

1 Angles round a point

The diagram shows 4 angles round a point.
Work out the size of angle b.
The diagram is not drawn accurately.

Angles round a point add up to 360°
65 + 95 + 85 = 245
360 − 245 = 115
Answer: b = 115°

2 Substitution

Work out the value of 6q when q = 7.

6q means 6 × q
6 × 7 = 42
Answer: 42

3 Number line

The number line shows an arrow.
Write down the number the arrow points to.

The numbers go up by 1 for each mark
The arrow points to 3
Answer: 3

4 Time from distance and speed

A train travels 400 miles at 50 mph.
How long does the journey take?

Time = distance ÷ speed
400 ÷ 50 = 8
Answer: 8 hours

5 Cost from area

A rectangular lawn is 5 m long and 6 m wide.
Turf costs £4 per m^2.
Work out the cost of covering the lawn.

Area = 5 × 6 = 30 m^2
Cost = 30 × £4 = £120
Answer: £120

6 Expressions for perimeter

A square has sides of length y cm.
Write an expression for the perimeter of the shape.
Give your answer in its simplest form.

Perimeter = y + y + y + y
= 4y
Answer: 4y cm

7 Best buys

Pencils are sold in two packs.
Pack A has 5 and costs £3.00.
Pack B has 2 and costs £1.00.
Which pack is better value?

Pack A: 300p ÷ 5 = 60p each
Pack B: 100p ÷ 2 = 50p each
Pack B is cheaper per item
Answer: Pack B

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8 Rounding money

Round £5.31 to the nearest pound.

Look at the pence: 31 p
less than 50p, so round down
Answer: £5

9 Number puzzles

Jon thinks of a number.
Jon adds 15.
The answer is 36.
What number did Jon think of?

Subtract 15 from 36
36 − 15 = 21
Answer: 21

10 Isosceles triangles

The diagram shows an isosceles triangle.
Work out the size of angle q.
The diagram is not drawn accurately.

The triangle is isosceles, so the two base angles are both 45°
45 + 45 = 90
180 − 90 = 90
Answer: q = 90°