Day 360 **C Tier 10-a-day: Model Solutions**

1 Solving equations

Solve $z - 6 = 9$

Add 6 to both sides
$z = 9 + 6 = 15$
Answer: z = 15

2 Cost of several items

A pen costs 92p.
Work out the cost of 8 pens.
Give your answer in pounds.

$92p \times 8 = 736p$
$736p = £7.36$
Answer: £7.36

3 Reading coordinates

Write down the coordinates of
(a) point A
(b) point B

Read the x-coordinate (across) first, then the y-coordinate (up or down).
(a) A: (6, 6)
(b) B: (5, 1)
Answer: (a) (6, 6) (b) (5, 1)

4 Prime numbers

Write down the prime number in this list.
21, 33, 27, 41

A prime number has exactly two factors, 1 and itself
$21 = 3 \times 7$
$33 = 3 \times 11$
$27 = 3 \times 9$
Answer: 41

5 Perimeter on a square grid

The diagram shows a shape drawn on a square grid.
Each square has a side of length 1 cm.
Work out the perimeter of the shape.

Count the length of each side going round the shape.
$3 + 1 + 2 + 2 + 2 + 1 + 3 + 2 = 16$
Answer: 16 cm

6 Inequalities

n is a whole number.
Write down all the possible values of n when
$0 \leq n \leq 3$

n is at least 0 and at most 3
The smallest whole number is 0 and the largest is 3
Answer: 0, 1, 2, 3

7 Stem and leaf diagrams

The stem and leaf diagram shows the times, in seconds, taken by runners.
Write down the smallest value.

The first row has the smallest stem and the first leaf is the smallest
11
Answer: 11

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8 Division in context

Each van holds 25 people.
52 people need a lift.
How many vans are needed?

52 ÷ 25 = 2 remainder 2
The extra people need another van
Answer: 3

9 Cost from area

A rectangular patio is 8 m long and 3 m wide.
Paving costs £4 per m^2.
Work out the cost of covering the patio.

Area = 8 × 3 = 24 m^2
Cost = 24 × £4 = £96
Answer: £96

10 Order of operations

Work out 9 × 6 + 4.

Multiply first
9 × 6 = 54
54 + 4 = 58
Answer: 58