Day 11 **C Tier 10-a-day: Model Solutions**

1 Missing numbers

Find the missing number.

$29 - ? = 24$

$29 - 24 = 5$

Answer: 5

2 Reading a table

The table shows the number of books each day.

Work out the total number of books on Tuesday and Friday.

Tuesday: 33, Friday: 15

$33 + 15 = 48$

Answer: 48

3 Probability with dice

A fair six-sided dice is rolled.

Write down the probability of rolling

(a) a multiple of 4

(b) an odd number

(a) 1 out of 6 numbers: $\frac{1}{6}$

(b) 3 out of 6 numbers: $\frac{3}{6} = \frac{1}{2}$

Answer: (a) $\frac{1}{6}$ (b) $\frac{1}{2}$

4 Translating a point

The point A has coordinates $(4, -5)$.

A is moved 3 right and 4 down.

Write down the coordinates of the new point.

x-coordinate: $4 + 3 = 7$

y-coordinate: $-5 - 4 = -9$

Answer: $(7, -9)$

5 Writing expressions

Zoe thinks of a number, n.

Zoe multiplies the number by 4 and then adds 6.

Write an expression for the answer.

Multiply by 4: $4n$

Then add 6: $4n + 6$

Answer: $4n + 6$

6 Probabilities add up to 1

A spinner has four colours.

The table shows the probability of each colour.

The probabilities add up to 1.

Work out the missing probability.

Add the known probabilities: $0.4 + 0.05 + 0.35 = 0.8$

$1 - 0.8 = 0.2$

Answer: 0.2

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7 Simplifying fractions

Write $\frac{20}{35}$ in its simplest form.

Divide the top and bottom by 5

$\frac{20}{35} = \frac{4}{7}$

Answer: $\frac{4}{7}$

8 The nth term

The nth term of a sequence is n + 4.
Work out the 9th term of the sequence.

Put n = 9 into n + 4

9 + 4 = 13

Answer: 13

9 Multiplying multiples of 10

Work out 20 × 40.

Work out 2 × 4 = 8

Then put the zeros back on

Answer: 800

10 Perimeter from area

A rectangular garden has an area of 88 m^2.
Its width is 8 m.
Work out the perimeter of the garden.

Length = area ÷ width = 88 ÷ 8 = 11

Perimeter = 11 + 8 + 11 + 8 = 38

Answer: 38 m