**Day 100** **C Tier 10-a-day: Model Solutions**

## 1 Perimeter of a rectangle

The diagram shows a rectangle.
Work out the perimeter of the rectangle.
The diagram is not drawn accurately.

Add up all four sides
15 + 6 + 15 + 6 = 42
**Answer: 42 m**

## 2 Collecting like terms

Simplify n + 2n

All the terms are in n, so just add or subtract the numbers in front of n
**Answer: 3n**

## 3 Naming quadrilaterals

Write down the name of the quadrilateral that has four right angles but the sides are not all equal.

The quadrilateral with four right angles but the sides are not all equal is a rectangle
**Answer: rectangle**

## 4 Digit cards

Here are four digit cards:
[ 2 ] [ 7 ] [ 6 ] [ 5 ]
Use all four cards to make the smallest possible 4-digit number.

Put the smallest digit in the thousands column, then the next smallest, and so on
**Answer: 2567**

## 5 Completing a table

The table shows the ways 25 students travel to school.
Work out the number of students for Car.

Add the known numbers: 5 + 6 + 5 = 16
25 − 16 = 9
**Answer: 9**

## 6 Powers

Work out $9^2 + 2$.

$9^2 = 81$
81 + 2 = 83
**Answer: 83**

## 7 Pattern sequences

The diagram shows the first three patterns in a sequence made by Hugo.
Each pattern is made from dots.
How many dots are in Pattern 6?

Pattern n is n rows of (n + 1): 1 × 2, 2 × 3, 3 × 4
Pattern 6 is 6 × 7 = 42
**Answer: 42**

## 8 Two-way tables

The two-way table shows some information.
Work out the missing number, shown by ?

Netball column: 8 + 10 = 18
**Answer: 18**

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## 9 Money: change

Nina buys lunch for £2.60.
Nina pays with a £10 note.
How much change does Nina get?

Change = £10 − £2.60
1000p − 260p = £7.40
**Answer: £7.40**

## 10 Angles in a triangle (words)

Two of the angles in a triangle are 80° and 70°.
Work out the size of the third angle.

Angles in a triangle add up to 180°
80 + 70 = 150
180 − 150 = 30
**Answer: 30°**