Day 43 **C Tier 10-a-day: Model Solutions**

1 Cost of several items

A pencil costs 77p.
Work out the cost of 8 pencils.
Give your answer in pounds.

77p × 8 = 616p
616p = £6.16
Answer: £6.16

2 Missing numbers

Find the missing number.
41 − ? = 6

41 − 6 = 35
Answer: 35

3 The mean

Here are the numbers of goals scored by a team in some matches.
1 3 3 5 3
Work out the mean.

Add up the values: 1 + 3 + 3 + 5 + 3 = 15
Divide by 5: 15 ÷ 5 = 3
Answer: 3

4 Angles in a triangle

The diagram shows a triangle.
Work out the size of angle p.
The diagram is not drawn accurately.

Angles in a triangle add up to 180°
45 + 40 = 85
180 − 85 = 95
Answer: p = 95°

5 Digit cards

Here are four digit cards:
[1] [2] [8] [9]
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: 1289

6 Sequences

Here are the first four terms of a sequence.
2, 6, 18, 54
(a) Write down the next term.
(b) Write down the rule for finding the next term.

(a) Each term is 3 times the one before
Next term = 162
(b) Multiply by 3 each time
Answer: (a) 162 (b) Multiply by 3

7 Two-way tables

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

Boys row: 17 + 18 = 35
Answer: 35

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8 Perimeter of a square from its area

A square lawn has an area of 25 m^2.
Work out the perimeter of the lawn.

Side × side = 25, so the side is 5 m (because 5 × 5 = 25)
Perimeter = 4 × 5 = 20
Answer: 20 m

9 Fractions, decimals and percentages

Write $\frac{3}{4}$ as a percentage.

Make the bottom 100: $\frac{3}{4} = \frac{75}{100}$

Answer: 75%

10 The nth term

The nth term of a sequence is 3n + 2.
Work out the 12th term of the sequence.

Put n = 12 into 3n + 2
3 × 12 + 2 = 38
Answer: 38