Day 281 **C Tier 10-a-day: Model Solutions**

1 Reading a table

The table shows the ways some students travel to school.
How many students are there in total?

10 + 17 + 6 + 13 + 15 = 61
Answer: 61

2 Ordering numbers

Write these numbers in order, starting with the largest.
453, 998, 554, 908

Compare the hundreds digits first, then the tens
998, 908, 554, 453
Answer: 998, 908, 554, 453

3 Substitution

Work out the value of t^3 when t = 4.

t^3 means t × t × t
4 × 4 × 4 = 64
Answer: 64

4 24-hour clock

Write 8:55 pm using the 24-hour clock.

Add 12 to the hour for pm times
20:55
Answer: 20:55

5 Isosceles triangles

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

The triangle is isosceles, so the two base angles are equal
180 − 120 = 60
60 ÷ 2 = 30
Answer: y = 30°

6 Money: saving

Kiran saves £3 each week.
How many weeks does it take to save £27?

£27 ÷ £3 = 9
Answer: 9 weeks

7 Reading a straight-line graph

The graph shows the cost of apples.
Use the graph to find the cost of 2 kg of apples.

Go up from 2 on the horizontal axis to the line, then across
Cost = £4
Answer: £4

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8 Perimeter of an L-shape

The diagram shows an L-shape.
All the corners are right angles.
Work out the perimeter of the shape.
The diagram is not drawn accurately.

Find the two missing sides.
Missing horizontal side: 13 − 3 = 10
Missing vertical side: 9 − 7 = 2
Add all six sides: 13 + 7 + 10 + 2 + 3 + 9 = 44
Answer: 44 cm

9 Expected number

The probability that a bus is late is $\frac{1}{3}$.

There are 24 buses in a week.
How many buses would you expect to be late?

Expected number = probability × number of trials
$\frac{1}{3} \times 24 = 8$
Answer: 8

10 Sequences

Here are the first four terms of a sequence.
2, 7, 9, 16
Each term is found by adding the two terms before it.
Write down the next two terms.

9 + 16 = 25
16 + 25 = 41
Answer: 25, 41