Day 327 **C Tier 10-a-day: Model Solutions**

1 Reading a pie chart

56 students were asked about their favourite fruit.
The pie chart shows the results.
How many students chose Pear?

The Pear sector is a quarter of the pie chart
56 ÷ 4 = 14
Answer: 14

2 24-hour clock

Write 05:15 using am or pm.

Times before 12:00 are am
Answer: 5:15 am

3 Function machines

Here is a function machine.
Work out the output when the input is 4.

4 + 10 = 14
14 + 4 = 18
Answer: 18

4 Ordering decimals

Write these numbers in order, starting with the smallest.
0.5, 0.51, 0.55, 0.6

Write each with the same number of decimal places
0.50, 0.51, 0.55, 0.60
Answer: 0.5, 0.51, 0.55, 0.6

5 Sharing in a ratio

Maya and Dina share 40 stickers in the ratio 1 : 4.
Work out how much each person gets.

Number of parts = 1 + 4 = 5
One part = 40 ÷ 5 = 8
Maya: 1 × 8 = 8 Dina: 4 × 8 = 32
Answer: Maya 8, Dina 32

6 Isosceles triangles

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

The triangle is isosceles, so the two base angles are both 70°
70 + 70 = 140
180 − 140 = 40
Answer: p = 40°

7 Number puzzles

Priya thinks of a number.
Priya multiplies it by 8.
The answer is 32.
What number did Priya think of?

Divide 32 by 8
32 ÷ 8 = 4
Answer: 4

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8 Enlargement

A triangle has sides of length 4 cm, 5 cm and 6 cm.
It is enlarged by scale factor 3.
Write down the lengths of the sides of the enlarged triangle.

Multiply each side by 3
4 × 3 = 12, 5 × 3 = 15, 6 × 3 = 18
Answer: 12 cm, 15 cm, 18 cm

9 Finding a missing value from the mean

The mean of three numbers is 9.
Two of the numbers are 11 and 6.
Work out the other number.

Total of all the numbers: 9 × 3 = 27
Total of those given: 11 + 6 = 17
27 − 17 = 10
Answer: 10

10 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: 14 − 11 = 3
Missing vertical side: 10 − 6 = 4
Add all six sides: 14 + 6 + 3 + 4 + 11 + 10 = 48
Answer: 48 m