Day 28 **C Tier 10-a-day: Model Solutions**

1 Radius and diameter

The radius of a round table is 17 cm.
Work out the diameter.

The diameter is twice the radius
2 × 17 = 34
Answer: 34 cm

2 Bar charts

The bar chart shows the ways some students travel to school.
Work out the total number of students.

13 + 5 + 10 + 8 = 36
Answer: 36

3 Number line

The number line shows an arrow.
Write down the number the arrow points to.

The numbers go up by 1 for each mark
The arrow points to 2
Answer: 2

4 Volume by counting cubes

A box holds 1 cm cubes in layers.
Each layer is 3 cubes long and 5 cubes wide.
There are 4 layers.
How many cubes are there altogether?

Cubes in one layer: 3 × 5 = 15
Number of layers: 4
15 × 4 = 60
Answer: 60 cubes

5 Solving equations

Solve $\frac{d}{2} = 7$

$\frac{d}{2}$ means d ÷ 2, so multiply both sides by 2
d = 7 × 2 = 14
Answer: d = 14

6 Reading a pie chart

48 students were asked about their ways of travelling to school.
The pie chart shows the results.
How many students chose Bus?

The Bus sector is a quarter of the pie chart
48 ÷ 4 = 12
Answer: 12

7 Expressions for perimeter

A triangle has sides of length z cm, z cm and 4 cm.
Write an expression for the perimeter of the shape.
Give your answer in its simplest form.

Perimeter = z + z + 4
= 2z + 4
Answer: 2z + 4 cm

Day 28 **C Tier 10-a-day: Model Solutions**

8 Shaded area

The diagram shows a rectangle with a smaller rectangle cut out of it.
Work out the area of the shaded part.
The diagram is not drawn accurately.

Big rectangle: 14 × 8 = 112
Small rectangle: 10 × 6 = 60
Shaded area: 112 − 60 = 52

Answer: 52 m^2

9 Money: wages

Maya earns £6 for each hour of work.
Maya works for 3 hours.
How much does Maya earn?

£6 × 3 = £18

Answer: £18

10 Best buys

Tins of beans are sold in two packs.
Pack A has 8 and costs £3.20.
Pack B has 4 and costs £1.20.
Which pack is better value?

Pack A: 320p ÷ 8 = 40p each
Pack B: 120p ÷ 4 = 30p each
Pack B is cheaper per item

Answer: Pack B