Day 67 **C Tier 10-a-day: Model Solutions**

1 Bar charts

The bar chart shows the favourite sport of some students.
Work out the total number of students.

12 + 17 + 10 + 5 = 44
Answer: 44

2 Finish time

A film starts at 7:20 am.
It lasts 2 hours 35 minutes.
At what time does the film finish?

Add the hours: 7:20 am + 2 hours = 9:20 am
Add the minutes: 9:20 am + 35 minutes = 9:55 am
Answer: 9:55 am

3 Solving equations

Solve $\frac{y}{6} = 7$

$\frac{y}{6}$ means y ÷ 6, so multiply both sides by 6
y = 7 × 6 = 42
Answer: y = 42

4 Rounding decimals

Round 33.6 to the nearest whole number.

Look at the first decimal digit, which is 6
6 is 5 or more, so round up
Answer: 34

5 Reading a scale

The diagram shows part of a measuring scale.
Write down the reading shown by the arrow.

The labelled marks go up in 5. There are 5 small steps between labelled marks, so each small step is 5 ÷ 5 = 1.
The arrow is 4 small steps after 5.
5 + 4 × 1 = 9
Answer: 9 litres

6 Tables of values

Complete the table of values for y = x + 6.

When x = 2: y = 2 + 6 = 8
When x = 4: y = 4 + 6 = 10
Answer: x = 2: y = 8; x = 4: y = 10

7 Midpoint of a line

A is the point (−4, −2).
B is the point (2, 2).
Work out the coordinates of the midpoint of AB.

Find the number halfway between the x-coordinates: (−4 + 2) ÷ 2 = −1
Find the number halfway between the y-coordinates: (−2 + 2) ÷ 2 = 0
Answer: (−1, 0)

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8 Relative frequency

Out of 20 trains, 8 were late.
Estimate the probability of being late.
Give your answer as a fraction in its simplest form.

Relative frequency = $\frac{8}{20}$

$= \frac{2}{5}$

Answer: $\frac{2}{5}$

9 Negative numbers: temperature

The temperature is −7°C.
It rises by 8°C.
What is the new temperature?

−7 + 8 = 1

Answer: 1°C

10 Stem and leaf diagrams

The stem and leaf diagram shows the lengths, in cm, of pieces of ribbon.
Write down the largest value.

The last row has the largest stem and its last leaf is the largest
58

Answer: 58