**Day 52** **C Tier 10-a-day: Model Solutions**

## 1 Place value

Write down the value of the digit 8 in the number 6087.

The digit 8 is in the tens column
8 × 10 = 80
**Answer: 80**

## 2 Choosing units

Which unit is best for measuring the height of a door?
Choose from: mm, cm, m, km

A door is about 2 metres high
So the best unit is m
**Answer: m**

## 3 The mean

Here are the ages of some children.
9 7 8
Work out the mean.

Add up the values: 9 + 7 + 8 = 24
Divide by 3: 24 ÷ 3 = 8
**Answer: 8**

## 4 Solving equations

Solve $\frac{m}{4} = 7$

$\frac{m}{4}$ means m ÷ 4, so multiply both sides by 4
m = 7 × 4 = 28
**Answer: m = 28**

## 5 Distance from speed and time

A cyclist travels at 12 km/h for 3 hours.
How far does it travel?

Distance = speed × time
12 × 3 = 36
**Answer: 36 km**

## 6 24-hour clock

Write 14:35 using the 12-hour clock.
Use am or pm in your answer.

Times after 12:00 are pm: subtract 12 from the hour, 14 − 12 = 2
14:35 = 2:35 pm
**Answer: 2:35 pm**

## 7 Fractions, decimals and percentages

Write 0.3 as a percentage.

Multiply by 100
0.3 × 100 = 30
**Answer: 30%**

**Day 52** **C Tier 10-a-day: Model Solutions**

## 8 Forming and solving equations

Femi has x stickers.
A friend gives Femi 15 more stickers.
Femi now has 43 stickers.
(a) Write down an equation using x.
(b) Solve your equation to find how many stickers Femi had at the start.

(a) $x + 15 = 43$
(b) $x = 43 - 15 = 28$
**Answer: (a) $x + 15 = 43$ (b) $x = 28$**

## 9 Finding a missing value from the mean

The mean of four numbers is 12.
Three of the numbers are 8, 20 and 8.
Work out the other number.

Total of all the numbers: $12 \times 4 = 48$
Total of those given: $8 + 20 + 8 = 36$
$48 - 36 = 12$
**Answer: 12**

## 10 Substitution into formulae

Use the formula $F = 6p + 5q$ to work out the value of F when $p = 5$ and $q = 9$.

$F = 6 \times 5 + 5 \times 9$
$= 30 + 45 = 75$
**Answer: $F = 75$**