Day 200 **C Tier 10-a-day: Model Solutions**

1 Writing numbers in words

Write the number 4190 in words.

Split the number: 4000 + 100 + 90

Answer: four thousand one hundred and ninety

2 Radius and diameter

The diameter of a coin is 50 m.
Work out the radius.

The radius is half the diameter
50 ÷ 2 = 25
Answer: 25 m

3 Frequency tables

The table shows the number of brothers and sisters of each student in a class.
Work out the total frequency.

7 + 8 + 12 + 10 + 10 = 47
Answer: 47

4 Ordering negative numbers

The temperatures in five towns are shown (in °C).
−8, 6, −3, 4, −4
Write them in order, starting with the highest.

Use a number line: negative numbers are smaller the further they are from 0
Answer: 6, 4, −3, −4, −8

5 Special sequences

Here are the first four terms of a sequence.
4, 9, 16, 25
Write down the next term.

These are square numbers: 2^2, 3^2, 4^2, 5^2 and so on
The next is $6^2 = 36$
Answer: 36

6 Equivalent fractions

Find the missing number.

$\frac{1}{4} = \frac{?}{12}$

4 × 3 = 12, so multiply the top by 3 as well
1 × 3 = 3
Answer: 3

7 Timetables

The table shows part of a bus timetable.
Priya arrives at Library at 08:16.
What is the time of the next bus from Library?

Look along the Library row for the first time after 08:16
The next bus is at 08:20
Answer: 08:20

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8 Volume of a cuboid

The diagram shows a cuboid.
Work out the volume of the cuboid.
The diagram is not drawn accurately.

Volume = length × width × height
5 × 6 × 6
5 × 6 = 30, then 30 × 6 = 180
Answer: 180 cm^3

9 Forming and solving equations

There are x pencils in each box.
5 boxes hold 25 pencils in total.
(a) Write down an equation using x.
(b) Solve your equation to find how many pencils are in each box.

(a) 5x = 25
(b) x = 25 ÷ 5 = 5
Answer: (a) 5x = 25 (b) x = 5

10 Sampling

Sam wants to find out how much money people spend on books.
Sam asks only people in a bookshop.
Give a reason why this sample may be biased.

People in a bookshop are more likely to spend a lot on books
Answer: People in a bookshop are more likely to spend a lot on books