Day 354 **C Tier 10-a-day: Model Solutions**

1 Substitution

Work out the value of 9 + x when x = 9.

9 + 9 = 18

Answer: 18

2 Rounding

Write 2321 to the nearest hundred.

Look at the tens digit, which is 2

2 is less than 5, so round down

Answer: 2300

3 Frequency tables

The table shows the number of books borrowed by each person in a group.

Work out the total frequency for the numbers less than 1.

5 = 5

Answer: 5

4 Sequences

Here is a sequence with one number missing.

22, ?, 26, 28, 30

Work out the missing number.

The terms go up by 2 each time

22 + 2 = 24

Answer: 24

5 Distance from speed and time

A runner travels at 10 km/h for 6 hours.

How far does it travel?

Distance = speed × time

10 × 6 = 60

Answer: 60 km

6 Volume by counting cubes

A box holds 1 cm cubes in layers.

Each layer is 4 cubes long and 3 cubes wide.

There are 3 layers.

How many cubes are there altogether?

Cubes in one layer: 4 × 3 = 12

Number of layers: 3

12 × 3 = 36

Answer: 36 cubes

7 Division with remainders

47 cards are shared equally between 6 children.

(a) How many does each child get?

(b) How many are left over?

47 ÷ 6 = 7 remainder 5

Answer: (a) 7 (b) 5

Day 354 **C Tier 10-a-day: Model Solutions**

8 Duration of a journey

A film starts at 6:55 am and finishes at 7:25 am.
How long is the film?

Count on from 6:55 am to 7:25 am:
5 minutes to 7:00 am
25 minutes to 7:25 am
Total: 30 minutes
Answer: 30 minutes

9 Percentages of amounts

Work out 20% of 60 kg.

20% = $\frac{1}{5}$, so divide by 5

60 ÷ 5 = 12
Answer: 12 kg

10 Venn diagrams

Some students were asked whether they play football or netball.
The Venn diagram shows the results.
How many students are in at least one circle?

Add the numbers inside the circles: 12 + 5 + 5 = 22
Answer: 22