Day 13 **C Tier 10-a-day: Model Solutions**

1 Units of time

How many days are there in 2 weeks?

1 week = 7 days
2 × 7 = 14
Answer: 14

2 The median of an even number of values

Here are the shoe sizes of some students.
5 5 7 7
Work out the median.

Put the numbers in order: 5 5 7 7
The middle two numbers are 5 and 7
Halfway between them: (5 + 7) ÷ 2 = 6
Answer: 6

3 Reading coordinates

Write down the coordinates of
(a) point B
(b) point C

Read the x-coordinate (across) first, then the y-coordinate (up or down).
(a) B: (2, 3)
(b) C: (5, 2)
Answer: (a) (2, 3) (b) (5, 2)

4 Number puzzles

Tara thinks of a number.
Tara adds 14.
The answer is 38.
What number did Tara think of?

Subtract 14 from 38
38 − 14 = 24
Answer: 24

5 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
9 × 3 × 2
9 × 3 = 27, then 27 × 2 = 54
Answer: 54 cm^3

6 Substitution

Work out the value of m^3 when m = 2.

m^3 means m × m × m
2 × 2 × 2 = 8
Answer: 8

7 Estimating measurements

Which is the best estimate for the capacity of a bath?
15 000 litres 15 ml 1.5 litres 150 litres

A bath holds many buckets of water
The best estimate is 150 litres
Answer: 150 litres

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8 Sequences

Here are the first four terms of a sequence.
9, 16, 23, 30
Is 72 a term in this sequence?
You must show your working.

The terms go up by 7 each time
Continue the sequence: 9, 16, 23, 30, 37, 44, 51, 58, 65, 72, 79
72 is in the list
Answer: Yes

9 Probability words

Choose a word from the list to describe the probability of the event.
A fair six-sided dice is rolled. The score is greater than 2.
impossible, unlikely, even chance, likely, certain

There are 4 numbers out of 6 that are greater than 2
So the event is likely
Answer: likely

10 Multiples: smallest common

Find the smallest number that is a multiple of both 3 and 10.

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30
Multiples of 10: 10, 20, 30
30 is in both lists
Answer: 30