Day 98 **C Tier 10-a-day: Model Solutions**

1 The range

Here are the marks in a test.
11 13 9 9 8 13 4
Work out the range.

Range = largest value − smallest value
13 − 4 = 9
Answer: 9

2 Faces, edges and vertices

How many edges does a cuboid have?

A cuboid: 4 edges on each end plus 4 joining them: 4 + 4 + 4 = 12
Answer: 12

3 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 less than 2.
impossible, unlikely, even chance, likely, certain

There are 1 numbers out of 6 that are less than 2
So the event is unlikely
Answer: unlikely

4 Money: change

Zara buys a toy for £6.50.
Zara pays with a £10 note.
How much change does Zara get?

Change = £10 − £6.50
1000p − 650p = £3.50
Answer: £3.50

5 Counting outcomes

A café has 5 colours of phone case and 2 phone models.
Choose one colour and one model.
How many different choices are there?

5 × 2 = 10
Answer: 10

6 Fractions, decimals and percentages

Write 30% as a decimal.

30% means 30 out of 100
30 ÷ 100 = 0.3
Answer: 0.3

7 Pattern sequences

The diagram shows the first three patterns in a sequence made by Hugo.
Each pattern is made from counters.
How many counters are in Pattern 5?

The patterns have 1, 3, 6 counters
Each pattern has one more row than the last: add 1, then 2, then 3, ...
Counting on: 1, 3, 6, 10, 15
Answer: 15

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8 Timetables

The table shows the times of two buses.
Jo gets on Bus 1 at Park Road.
What time does Jo get to Station?

Read along the row for Station in the Bus 1 column
Answer: 10:55

9 Forming and solving equations

Max has x stickers.
A friend gives Max 15 more stickers.
Max now has 45 stickers.
(a) Write down an equation using x.
(b) Solve your equation to find how many stickers Max had at the start.

(a) $x + 15 = 45$
(b) $x = 45 - 15 = 30$
Answer: (a) $x + 15 = 45$ (b) $x = 30$

10 Cost from area

A rectangular patio is 5 m long and 6 m wide.
Paving costs £10 per m^2.
Work out the cost of covering the patio.

Area = $5 \times 6 = 30$ m^2
Cost = $30 \times$ £10 = £300
Answer: £300