Day 36 **C Tier 10-a-day: Model Solutions**

1 Fractions of a shape

What fraction of the shape is shaded?

There are 5 equal parts
2 parts are shaded

Fraction shaded = $\frac{2}{5}$

Answer: $\frac{2}{5}$

2 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 0.
impossible, unlikely, even chance, likely, certain

There are 6 numbers out of 6 that are greater than 0
So the event is certain
Answer: certain

3 Area of a rectangle

The diagram shows a rectangle.
Work out the area of the rectangle.
The diagram is not drawn accurately.

Area = length × width
8 × 2 = 16
Answer: 16 cm^2

4 Subtracting decimals

Work out 7.8 − 5.1.

Line up the decimal points
7.8 − 5.1 = 2.7
Answer: 2.7

5 Map scales

On a map, 1 cm represents 20 km.
On the map, two towns are 12 cm apart.
Work out the real distance between the towns.

1 cm represents 20 km
12 × 20 = 240
Answer: 240 km

6 Special sequences

Here are the first four terms of a sequence.
3, 9, 27, 81
Write down the next two terms.

Each term is 3 times the one before
81 × 3 = 243
243 × 3 = 729
Answer: 243, 729

7 Rounding money

Round £7.83 to the nearest 10p.

Look at the last digit, which is 3
less than 5, so round down
Answer: £7.80

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8 Coordinates

ABCD is a rectangle.
A is the point (9, 0), B is the point (2, 0) and C is the point (2, 8).
Write down the coordinates of D.

AB is horizontal so D has the same x-coordinate as A: 9
BC is vertical so D has the same y-coordinate as C: 8
Answer: (9, 8)

9 Timetables

The table shows part of a bus timetable.
How long does Bus 3 take to travel from Park to School?

Leaves Park at 08:10 and arrives at School at 08:25
From 08:10 to 08:25 is 15 minutes
Answer: 15 minutes

10 Equations of lines

A straight line passes through the points
(5, 7), (5, 8), (5, 9)
Write down the equation of the line.

Every point has x-coordinate 5, so the line is vertical
Answer: $x = 5$