Day 244 **C Tier 10-a-day: Model Solutions**

1 Money: change

Femi buys lunch for £4.95.
Femi pays with a £10 note.
How much change does Femi get?

Change = £10 − £4.95
1000p − 495p = £5.05
Answer: £5.05

2 Sequences

Here are the first four terms of a sequence.
31, 27, 23, 19
Write down the next term.

The terms go down by 4 each time
19 − 4 = 15
Answer: 15

3 Rounding decimals

Round 4.7 to the nearest whole number.

Look at the first decimal digit, which is 7
7 is 5 or more, so round up
Answer: 5

4 Sharing in a ratio

Carlos and Sam share 8 stickers in the ratio 3 : 1.
Work out how much each person gets.

Number of parts = 3 + 1 = 4
One part = 8 ÷ 4 = 2
Carlos: 3 × 2 = 6 Sam: 1 × 2 = 2
Answer: Carlos 6, Sam 2

5 Map scales

On a map, 1 cm represents 200 m.
Two towns are 1000 m apart in real life.
How far apart are they on the map?

1 cm represents 200 m
1000 ÷ 200 = 5
Answer: 5 cm

6 Scatter graphs

The scatter graph shows information about temperature and ice creams sold.
What type of correlation does the scatter graph show?

As temperature increases, ice creams sold also increases
This is positive correlation
Answer: Positive correlation

7 Substitution

Work out the value of a^3 when a = 5.

a^3 means a × a × a
5 × 5 × 5 = 125
Answer: 125

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8 Reflection on a grid

The point P is drawn on the grid.
P is reflected in the line y = 4.
Write down the coordinates of the image of P.

P is (1, 3)
P is 1 squares below the line, so the image is 1 squares above
y-coordinate: 4 + 1 = 5
Answer: (1, 5)

9 The nth term

The nth term of a sequence is 2n + 1.
Work out the 9th term of the sequence.

Put n = 9 into 2n + 1
2 × 9 + 1 = 19
Answer: 19

10 Cost from perimeter

A rectangular field is 6 m long and 8 m wide.
Fencing costs £6 per metre.
Work out the cost of putting fence all the way round the field.

Perimeter = 6 + 8 + 6 + 8 = 28 m
Cost = 28 × £6 = £168
Answer: £168