Day 222 **C Tier 10-a-day: Model Solutions**

1 Money

A bun costs 50p.
Work out the cost of 4 buns.
Give your answer in pounds.

50p × 4 = 200p
200p = £2.00
Answer: £2.00

2 Collecting like terms

Simplify 8w − 3w

All the terms are in w, so just add or subtract the numbers in front of w
Answer: 5w

3 Number line

The number line shows an arrow.
Write down the number the arrow points to.

The numbers go up by 1 for each mark
The arrow points to −2
Answer: −2

4 Probability from a bag

A bag contains 5 green and 2 yellow counters.
One is taken at random.
Write down the probability that it is yellow.

There are 7 in total, and 2 are yellow

Probability = $\frac{2}{7}$

Answer: $\frac{2}{7}$

5 Perimeter of a regular polygon

A regular equilateral triangle has sides of length 12 m.
Work out its perimeter.

A regular equilateral triangle has 3 equal sides
3 × 12 = 36
Answer: 36 m

6 Time from distance and speed

A car travels 350 miles at 50 mph.
How long does the journey take?

Time = distance ÷ speed
350 ÷ 50 = 7
Answer: 7 hours

7 Substitution into formulae

Use the formula C = 6a + 4b to work out the value of C when a = 5 and b = 5.

C = 6 × 5 + 4 × 5
= 30 + 20 = 50
Answer: C = 50

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8 Reflection on a grid

The point P is drawn on the grid.
P is reflected in the line x = 5.
Write down the coordinates of the image of P.

P is (4, 4)
P is 1 squares to the left of the line, so the image is 1 squares to the right
x-coordinate: 5 + 1 = 6
Answer: (6, 4)

9 The nth term

The nth term of a sequence is n + 5.
Write down the first three terms of the sequence.

Put n = 1, 2, 3 into n + 5
1 + 5 = 6, 2 + 5 = 7, 3 + 5 = 8
Answer: 6, 7, 8

10 Order of operations

Work out 4 × (7 + 6).

Brackets first
7 + 6 = 13
4 × 13 = 52
Answer: 52