Day 174 **C Tier 10-a-day: Model Solutions**

1 Multiplication

Work out 38 × 4.

30 × 4 = 120 and 8 × 4 = 32
120 + 32 = 152
Answer: 152

2 Which expression

Which of these means 2 added to t?

t^2, t + 2, 2t, $\frac{t}{2}$

2 added to t is written t + 2
Answer: t + 2

3 Probability from a bag

A bag contains 4 white and 5 pink beads.
One is taken at random.
Write down the probability that it is white.

There are 9 in total, and 4 are white

Probability = $\frac{4}{9}$

Answer: $\frac{4}{9}$

4 Perimeter of a rectangle

A rectangular photo frame is 13 cm long and 8 cm wide.
Work out the perimeter.

Add up all four sides
13 + 8 + 13 + 8 = 42
Answer: 42 cm

5 Number puzzles

I think of a number.
I add 5.
My answer is 17.
What number did I think of?

Work backwards: subtract 5
17 − 5 = 12
Answer: 12

6 Reflection on a grid

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

P is (3, 5)
P is 1 squares to the left of the line, so the image is 1 squares to the right
x-coordinate: 4 + 1 = 5
Answer: (5, 5)

7 Inequalities

n is a whole number.
Write down all the possible values of n when
3 < n < 6

n is bigger than 3 and smaller than 6
The smallest whole number is 4 and the largest is 5
Answer: 4, 5

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8 Cost from perimeter

A rectangular play area is 11 m long and 6 m wide.
Fencing costs £10 per metre.
Work out the cost of putting fence all the way round the play area.

Perimeter = 11 + 6 + 11 + 6 = 34 m
Cost = 34 × £10 = £340
Answer: £340

9 Negative numbers: temperature

The temperature is 5°C.
It falls by 9°C.
What is the new temperature?

5 − 9 = −4
Answer: −4°C

10 Timetables

The table shows part of a bus timetable.
Sam gets on Bus 2 at Library.
At what time does the bus arrive at Station?

Look along the row for Station and down the Bus 2 column: 08:35
Answer: 08:35