Day 188 **C Tier 10-a-day: Model Solutions**

1 Sequences

Here are the first four terms of a sequence.
5, 12, 19, 26
Is 73 a term in this sequence?
You must show your working.

The terms go up by 7 each time
Continue the sequence: 5, 12, 19, 26, 33, 40, 47, 54, 61, 68, 75
73 is not in the list
Answer: No

2 Pictograms

The pictogram shows the number of cars washed on four days.
How many more cars on Mon than on Thu?

Mon: 2.5 × 2 = 5
Thu: 1.5 × 2 = 3
5 − 3 = 2
Answer: 2

3 Ordering numbers

Write these numbers in order, starting with the smallest.
609, 578, 164, 966, 399

Compare the hundreds digits first, then the tens
164, 399, 578, 609, 966
Answer: 164, 399, 578, 609, 966

4 Writing expressions

Zoe has p stickers.
Beth has 8 more stickers than Zoe.
Write an expression for the number of stickers that Beth has.

8 more than p is p + 8
Answer: p + 8

5 Fractions of amounts

Work out $\frac{1}{6}$ of 30 litres.

Divide by 6
30 ÷ 6 = 5
Answer: 5 litres

6 Reading a pie chart

64 students were asked about their favourite fruit.
The pie chart shows the results.
How many students chose Banana?

The Banana sector is a quarter of the pie chart
64 ÷ 4 = 16
Answer: 16

7 Multiplying multiples of 10

Work out 70 × 30.

Work out 7 × 3 = 21
Then put the zeros back on
Answer: 2100

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8 Reflection on a grid

The point P is drawn on the grid.
P is reflected in the line y = 3.
Write down the coordinates of the image of P.

P is (5, 2)
P is 1 squares below the line, so the image is 1 squares above
y-coordinate: 3 + 1 = 4
Answer: (5, 4)

9 Coordinates

ABCD is a rectangle.
A is the point (2, 0), B is the point (2, 7) and C is the point (4, 7).
Write down the coordinates of D.

AB is vertical so D has the same y-coordinate as A: 0
BC is horizontal so D has the same x-coordinate as C: 4
Answer: (4, 0)

10 Perimeter of a square from its area

A square tile has an area of 36 cm^2.
Work out the perimeter of the tile.

Side × side = 36, so the side is 6 cm (because 6 × 6 = 36)
Perimeter = 4 × 6 = 24
Answer: 24 cm