Day 70 **C Tier 10-a-day: Model Solutions**

1 Sequences

Here are the first four terms of a sequence.
11, 18, 25, 32
Write down the next term.

The terms go up by 7 each time
32 + 7 = 39
Answer: 39

2 Digit cards

Here are four digit cards:
[4] [9] [8] [3]
Use all four cards to make the largest possible 4-digit number.

Put the biggest digit in the thousands column, then the next biggest, and so on
Answer: 9843

3 Pictograms

The pictogram shows the number of cars washed on four days.
Work out the total number of cars.

Number of symbols: 3.5 + 4 + 2 + 1.5 = 11
11 × 10 = 110
Answer: 110

4 Subtracting decimals

Work out 9.4 − 4.7.

Line up the decimal points
9.4 − 4.7 = 4.7
Answer: 4.7

5 Simplifying expressions

Simplify 5m + 7 + 3m

Letters: 5m + 3m = 8m
Numbers: 7 on its own
Answer: 8m + 7

6 Missing side from area

A rectangular wall has an area of 35 cm^2.
Its length is 7 cm.
Work out its width.

Area = length × width
35 = 7 × width
width = 35 ÷ 7 = 5
Answer: 5 cm

7 Adding fractions

Work out $\frac{3}{8} + \frac{2}{8}$.

The denominators are the same, so add the numerators
3 + 2 = 5
Answer: $\frac{5}{8}$

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8 Expected number

The probability that a bus is late is 0.25.
There are 200 buses in a week.
How many buses would you expect to be late?

Expected number = probability × number of trials
0.25 × 200 = 50
Answer: 50

9 Area of a triangle

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

Area of a triangle = base × height ÷ 2
11 × 4 = 44
44 ÷ 2 = 22
Answer: 22 cm^2

10 Finding a missing value from the mean

The mean of five numbers is 5.
Four of the numbers are 3, 4, 3 and 10.
Work out the other number.

Total of all the numbers: 5 × 5 = 25
Total of those given: 3 + 4 + 3 + 10 = 20
25 − 20 = 5
Answer: 5