Day 8 **C Tier 10-a-day: Model Solutions**

1 Multiples

Write down the first four multiples of 12.

Multiples are the 12 times table

Answer: 12, 24, 36, 48

2 Estimating measurements

Which is the best estimate for the height of a classroom door?

2 m 20 m 2 cm 2 km

A door is a little taller than an adult

The best estimate is 2 m

Answer: 2 m

3 Writing expressions

Simplify y × t

Write the number first, then the letters in alphabetical order, with no × signs

Answer: ty

4 Angles on a straight line

The diagram shows a straight line.

Work out the size of angle p.

The diagram is not drawn accurately.

Angles on a straight line add up to 180°

90 + 40 = 130

180 − 130 = 50

Answer: p = 50°

5 Substitution

Work out the value of 5b − 21 when b = 6.

5b = 5 × 6 = 30

30 − 21 = 9

Answer: 9

6 Area on a square grid

The diagram shows a shape drawn on a square grid.

Each square has an area of 1 cm^2.

Work out the area of the shape.

Count the squares in the shape.

Split into two rectangles: 3 × 3 = 9 and 1 × 2 = 2

9 + 2 = 11

Answer: 11 cm^2

7 Division with remainders

27 cards are shared equally between 5 children.

(a) How many does each child get?

(b) How many are left over?

27 ÷ 5 = 5 remainder 2

Answer: (a) 5 (b) 2

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8 Finding a missing value from the mean

The mean of four numbers is 12.
Three of the numbers are 10, 9 and 14.
Work out the other number.

Total of all the numbers: 12 × 4 = 48
Total of those given: 10 + 9 + 14 = 33
48 − 33 = 15
Answer: 15

9 Division in context

Each coach holds 50 people.
187 people need a lift.
How many coaches are needed?

187 ÷ 50 = 3 remainder 37
The extra people need another coach
Answer: 4

10 Probability of not getting a colour

A bag contains 3 blue marbles, 5 yellow marbles and 5 black marbles.
One is taken at random.
Write down the probability that it is not blue.

Number that are not blue: 5 + 5 = 10
Total: 13

Probability = $\frac{10}{13}$

Answer: $\frac{\mathbf{10}}{\mathbf{13}}$