Day 274 **C Tier 10-a-day: Model Solutions**

1 Cost of several items

A bun costs 29p.
Work out the cost of 4 buns.
Give your answer in pounds.

29p × 4 = 116p
116p = £1.16
Answer: £1.16

2 Money

A bun costs 87p.
Work out the cost of 3 buns.
Give your answer in pounds.

87p × 3 = 261p
261p = £2.61
Answer: £2.61

3 Sequences

Here is a sequence with one number missing.
21, 28, 35, ?, 49
Work out the missing number.

The terms go up by 7 each time
35 + 7 = 42
Answer: 42

4 Probability of an event not happening

The probability that the team wins on Saturday is $\frac{1}{6}$.

Work out the probability that this does not happen.

P(not) = 1 − P(event)
$1 - \frac{1}{6} = \frac{5}{6}$
Answer: $\frac{5}{6}$

5 Using formulae

The distance, d km, travelled in t hours is given by the formula d = 3t.
(a) Work out the value of d when t = 7.
(b) Work out the value of t when d = 27.

(a) d = 3 × 7 = 21
(b) 3t = 27, so t = 27 ÷ 3 = 9
Answer: (a) d = 21 (b) t = 9

6 Volume of a cuboid

The diagram shows a cuboid.
Work out the volume of the cuboid.
The diagram is not drawn accurately.

Volume = length × width × height
8 × 4 × 3
8 × 4 = 32, then 32 × 3 = 96
Answer: 96 m^3

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7 Tables of values

The table shows some values of x and y.
(a) Write down the value of y when x = 2.
(b) Write down the value of x when y = 6.

(a) Find 2 in the top row; the number underneath is 9
(b) Find 6 in the bottom row; the number above is 1
Answer: (a) 9 (b) 1

8 Division in context

Each coach holds 40 people.
127 people need a lift.
How many coaches are needed?

127 ÷ 40 = 3 remainder 7
The extra people need another coach
Answer: 4

9 Cost from perimeter

A rectangular garden is 9 m long and 4 m wide.
Fencing costs £4 per metre.
Work out the cost of putting fence all the way round the garden.

Perimeter = 9 + 4 + 9 + 4 = 26 m
Cost = 26 × £4 = £104
Answer: £104

10 Writing numbers in figures

Write six thousand five hundred and three in figures.

Write each part: 6000 + 500 + 3
Add the parts together
Answer: 6503