Day 352 **C Tier 10-a-day: Model Solutions**

1 Number puzzles

Priya thinks of a number.
Priya divides it by 5.
The answer is 2.
What number did Priya think of?

Multiply 2 by 5
2 × 5 = 10
Answer: 10

2 Faces, edges and vertices

How many edges does a square-based pyramid have?

A square-based pyramid: 4 edges round the base plus 4 up to the top: 4 + 4 = 8
Answer: 8

3 Probability words

Choose a word from the list to describe the probability of the event.
A bag contains 1 red counter and 3 blue counters. Without looking, a counter is taken. It is red.
impossible, unlikely, even chance, likely, certain

1 of the 4 counters are red
So the event is unlikely
Answer: unlikely

4 Angles in a triangle

The diagram shows a triangle.
Work out the size of angle q.
The diagram is not drawn accurately.

Angles in a triangle add up to 180°
50 + 40 = 90
180 − 90 = 90
Answer: q = 90°

5 Completing a table

The table shows the favourite colour of 20 children.
Work out the number of children for Green.

Add the known numbers: 9 + 2 + 3 = 14
20 − 14 = 6
Answer: 6

6 Reading straight line graphs

The graph shows the cost of a taxi journey.
(a) Work out the cost of a journey of 3 miles.
(b) Tara pays £40 for a taxi. How many miles was the journey?

(a) Go up from 3 on the bottom axis to the line, then across: £30
(b) Go across from 40 on the cost axis to the line, then down: 4
Answer: (a) £30 (b) 4

7 Division with remainders

29 cards are shared equally between 6 children.
(a) How many does each child get?
(b) How many are left over?

29 ÷ 6 = 4 remainder 5
Answer: (a) 4 (b) 5

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8 Sequences

Here are the first four terms of a sequence.
5, 11, 17, 23
Is 47 a term in this sequence?
You must show your working.

The terms go up by 6 each time
Continue the sequence: 5, 11, 17, 23, 29, 35, 41, 47, 53
47 is in the list
Answer: Yes

9 Ratio, finding the other part

In a bowl, the ratio of apples to oranges is 4 : 3.
There are 18 oranges.
Work out the number of apples.

18 ÷ 3 = 6 for each part
4 × 6 = 24
Answer: 24

10 Order of operations

Work out 7 + 6 × 2.

Multiply first
6 × 2 = 12
7 + 12 = 19
Answer: 19