Day 207 **C Tier 10-a-day: Model Solutions**

1 Area of a rectangle

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

Area = length × width
5 × 2 = 10
Answer: 10 cm^2

2 Even and odd numbers

Write down all the even numbers in this list.
16, 97, 45, 56, 17

Even numbers end in 0, 2, 4, 6 or 8
Answer: 16, 56

3 Types of triangle

A triangle has sides of length 12 cm, 8 cm and 11 cm.
What type of triangle is it?

All three sides are different
Answer: scalene

4 Solving equations

Solve 13 + k = 28

Subtract 13 from both sides
k = 28 − 13 = 15
Answer: k = 15

5 Reading coordinates

Write down the coordinates of
(a) point A
(b) point B

Read the x-coordinate (across) first, then the y-coordinate (up or down).
(a) A: (−2, −3)
(b) B: (2, 2)
Answer: (a) (−2, −3) (b) (2, 2)

6 Multiplying multiples of 10

Work out 60 × 50.

Work out 6 × 5 = 30
Then put the zeros back on
Answer: 3000

7 Forming and solving equations

There are x children in a club.
11 children leave.
There are now 4 children in the club.
(a) Write down an equation using x.
(b) Solve your equation to find how many children were in the club at first.

(a) x − 11 = 4
(b) x = 4 + 11 = 15
Answer: (a) x − 11 = 4 (b) x = 15

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8 Travel graphs

The graph shows a journey. Mia drives from home to a shop and then back home.
(a) How far from home is the shop?
(b) For how many hours did the journey stop at the shop?

(a) The highest point of the graph is 40 km
(b) The graph is flat from 1 to 3 hours: 2 hours
Answer: (a) 40 km (b) 2 hours

9 Fractions, decimals and percentages

Write 70% as a fraction in its simplest form.

$70\% = \frac{70}{100}$
Simplify: divide the top and bottom by 10
$= \frac{7}{10}$

Answer: $\frac{7}{10}$

10 Pie chart angles

90 students were asked about their favourite fruit.
10 of them chose bananas.
The results are shown in a pie chart.
Work out the angle of the sector for those students.

360° ÷ 90 = 4° for each student
10 × 4° = 40°
Answer: 40°