Day 288 **C Tier 10-a-day: Model Solutions**

1 Reading a table

The table shows the types of film some people watched.
How many more people for Action than for Horror?

Action: 18 Horror: 10
18 − 10 = 8
Answer: 8

2 Length conversions

Change
(a) 5000 m into km
(b) 120 mm into cm

(a) 1000 m = 1 km, so divide by 1000: 5000 ÷ 1000 = 5
(b) 10 mm = 1 cm, so divide by 10: 120 ÷ 10 = 12
Answer: (a) 5 km (b) 12 cm

3 Ordering decimals

Write these numbers in order, starting with the smallest.
0.31, 0.4, 0.25, 0.35

Write each with the same number of decimal places
0.25, 0.31, 0.35, 0.40
Answer: 0.25, 0.31, 0.35, 0.4

4 Two-way tables

The two-way table shows some information.
Work out the missing number, shown by ?

Adults row: 4 + 9 = 13
Answer: 13

5 Reflecting a point

The point P has coordinates (5, −2).
P is reflected in the y-axis.
Write down the coordinates of the image of P.

The y-coordinate stays the same and the x-coordinate changes sign
Answer: (−5, −2)

6 Reading straight line graphs

The graph shows the cost of hiring a bike.
(a) Work out the cost of hiring the bike for 3 hours.
(b) Sam pays £24 to hire the bike. For how many hours does Sam hire it?

(a) Go up from 3 on the bottom axis to the line, then across: £12
(b) Go across from 24 on the cost axis to the line, then down: 6
Answer: (a) £12 (b) 6

7 Simplifying fractions

Write $\frac{9}{15}$ in its simplest form.

Divide the top and bottom by 3
$\frac{9}{15} = \frac{3}{5}$

Answer: $\frac{3}{5}$

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8 Substitution

d = 2 and z = 9
Work out the value of
(a) z − d
(b) d + z

(a) 9 − 2 = 7
(b) 2 + 9 = 11
Answer: (a) 7 (b) 11

9 Fractions, decimals and percentages

Write 0.75 as a percentage.

Multiply by 100
0.75 × 100 = 75
Answer: 75%

10 Midpoint of a line

A is the point (3, −1).
B is the point (3, 1).
Work out the coordinates of the midpoint of AB.

Find the number halfway between the x-coordinates: (3 + 3) ÷ 2 = 3
Find the number halfway between the y-coordinates: (−1 + 1) ÷ 2 = 0
Answer: (3, 0)