**Day 41** **C Tier 10-a-day: Model Solutions**

## 1 Reading straight line graphs

The graph shows the cost of printing photos.
(a) Work out the cost of printing 4 photos.
(b) Hugo spends £35 printing photos. How many photos does Hugo print?

(a) Go up from 4 on the bottom axis to the line, then across: £25
(b) Go across from 35 on the cost axis to the line, then down: 6
**Answer: (a) £25 (b) 6**

## 2 Reading a table

The table shows the number of tickets each day.
Work out the total number of tickets on Monday and Wednesday.

Monday: 36, Wednesday: 19
36 + 19 = 55
**Answer: 55**

## 3 Estimating measurements

Which is the best estimate for the time taken to boil a kettle?
30 hours 3 hours 3 minutes 3 seconds

A kettle boils in a few minutes
The best estimate is 3 minutes
**Answer: 3 minutes**

## 4 Ordering fractions

Write these fractions in order, starting with the smallest.
$\frac{9}{12}, \frac{2}{12}, \frac{4}{12}$

The denominators are all 12, so compare the numerators
2, 4, 9 (numerators in order)
**Answer:** $\frac{2}{12}, \frac{4}{12}, \frac{9}{12}$

## 5 Midpoint of a line

P is the point (3, 6).
Q is the point (11, 12).
Work out the coordinates of the midpoint of PQ.

Find the number halfway between the x-coordinates: (3 + 11) ÷ 2 = 7
Find the number halfway between the y-coordinates: (6 + 12) ÷ 2 = 9
**Answer: (7, 9)**

## 6 Special sequences

Here are the first four terms of a sequence.
64, 32, 16, 8
Write down the next two terms.

Each term is half the one before
8 ÷ 2 = 4
4 ÷ 2 = 2
**Answer: 4, 2**

## 7 Relative frequency

A spinner is spun 40 times and lands on red 13 times.
Estimate the probability that it lands on red next time.
Give your answer as a fraction in its simplest form.

Relative frequency = $\frac{13}{40}$

**Answer:** $\frac{13}{40}$

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## 8 Simplifying fractions

Write $\frac{10}{25}$ in its simplest form.

Divide the top and bottom by 5

$\frac{10}{25} = \frac{2}{5}$

**Answer:** $\frac{2}{5}$

## 9 Substitution

Work out the value of $7 - t$ when $t = -6$.

$7 - (-6) = 7 + 6 = 13$

**Answer: 13**

## 10 Pie chart angles

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

$360° \div 24 = 15°$ for each student

$2 \times 15° = 30°$

**Answer: 30°**