**Day 229** **C Tier 10-a-day: Model Solutions**

## 1 Halves, quarters and thirds

Write down a quarter of 36.

Halve, then halve again: 18, then 9

**Answer: 9**

## 2 Time conversions

Change
(a) 480 minutes into hours
(b) 2 hours into minutes

(a) 60 minutes = 1 hours, so divide by 60: 480 ÷ 60 = 8
(b) 1 hours = 60 minutes, so multiply by 60: 2 × 60 = 120

**Answer: (a) 8 hours (b) 120 minutes**

## 3 Which expression

Which of these means t multiplied by 4?

$t + 4$, $4t$, $t^2$, $\frac{t}{4}$

t × 4 is written 4t

**Answer: 4t**

## 4 Vertically opposite angles

The diagram shows two straight lines crossing.
Work out the size of angle x.
The diagram is not drawn accurately.

Vertically opposite angles are equal
x = 120°

**Answer: x = 120°**

## 5 Estimation

Estimate the value of 29 + 16 by rounding each number to the nearest 10.

29 rounds to 30 and 16 rounds to 20
30 + 20 = 50

**Answer: 50**

## 6 Sequences

Here are the first four terms of a sequence.
3, 2, 5, 7
Each term is found by adding the two terms before it.
Write down the next two terms.

5 + 7 = 12
7 + 12 = 19

**Answer: 12, 19**

## 7 Line graphs

The line graph shows the temperature in a garden at different times.
Work out the increase in the temperature between 10 am and 11 am.

At 10 am: 15°C At 11 am: 16°C
16 − 15 = 1

**Answer: 1°C**

## 8 Ordering numbers

Write these numbers in order, starting with the largest.
960, 580, 300, 301

Compare the hundreds digits first, then the tens
960, 580, 301, 300

**Answer: 960, 580, 301, 300**

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## 9 Shaded area

The diagram shows a rectangle with a smaller rectangle cut out of it.
Work out the area of the shaded part.
The diagram is not drawn accurately.

Big rectangle: $12 \times 10 = 120$
Small rectangle: $7 \times 5 = 35$
Shaded area: $120 - 35 = 85$

**Answer: 85 $m^2$**

## 10 Map scales

On a map, 1 cm represents 5 km.
Two towns are 3 cm apart on the map.
Work out the real distance between the towns.

$3 \times 5 = 15$

**Answer: 15 km**