**Day 296** **C Tier 10-a-day: Model Solutions**

## 1 Choosing units

Which unit is best for measuring the width of a fingernail?
Choose from: mm, cm, m, km

A fingernail is about 10 millimetres wide
So the best unit is mm
**Answer: mm**

## 2 Rounding

Write 308 to the nearest ten.

Look at the units digit, which is 8
8 is 5 or more, so round up
**Answer: 310**

## 3 Coordinates

Write down the coordinates of
(a) point E
(b) point H

Go across first (x), then up (y)
E is 3 across and 4 up
H is 7 across and 3 up
**Answer: (a) (3, 4) (b) (7, 3)**

## 4 Subtraction

Work out 555 − 186.

555 − 186 = 369
**Answer: 369**

## 5 Tables of values

The table shows some values of x and y.
(a) Write down the value of y when x = 2.
(b) Write down the value of x when y = 5.

(a) Find 2 in the top row; the number underneath is 8
(b) Find 5 in the bottom row; the number above is 1
**Answer: (a) 8 (b) 1**

## 6 Division

Work out 225 ÷ 5.

5 × 45 = 225
So 225 ÷ 5 = 45
**Answer: 45**

## 7 Volume of a cuboid

The diagram shows a cuboid.
Work out the volume of the cuboid.
The diagram is not drawn accurately.

Volume = length × width × height
8 × 6 × 3
8 × 6 = 48, then 48 × 3 = 144
**Answer: 144 $m^3$**

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## 8 Distance from speed and time

A coach travels at 70 km/h for 2 hours.
How far does it travel?

Distance = speed × time
70 × 2 = 140
**Answer: 140 km**

## 9 Substitution

Work out the value of b − 2 when b = −5.

−5 − 2 = −7
**Answer: −7**

## 10 Sampling

Leah wants to find out how much exercise people take.
Leah asks people leaving a gym.
Give a reason why this sample may be biased.

People at a gym are more likely to exercise a lot
**Answer: People at a gym are more likely to exercise a lot**