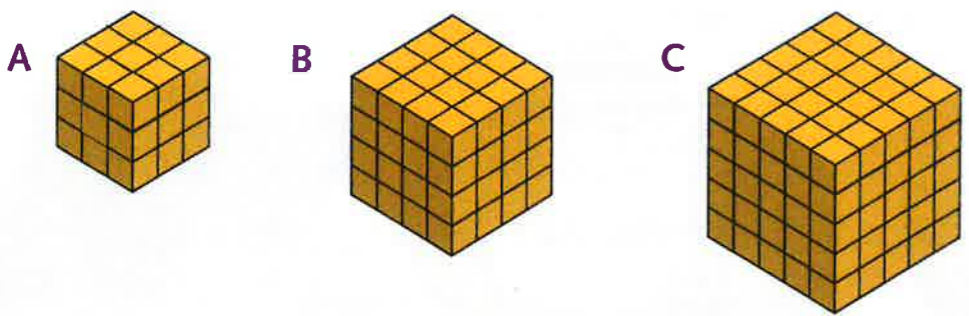# Volume of cubes and cuboids

Calculate the volume of cubes and cuboids using the rule $V = lbh$

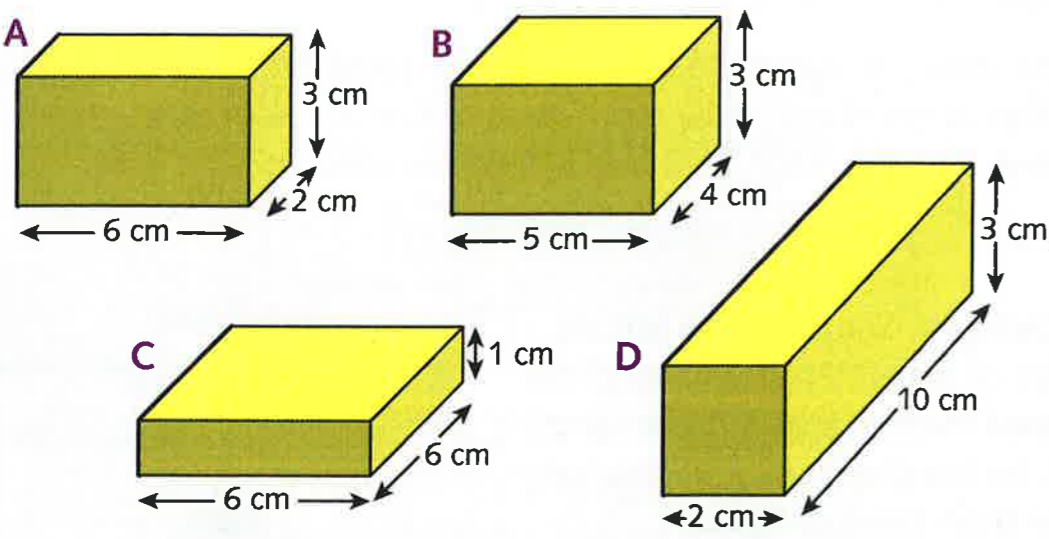**1** Each cube is made with 1 cm³ cubes. Calculate the volume of these cubes using the rule $V = lbh$.

A   B   C

Example

$V = lbh$

$= 2 \times 2 \times 2$

$= 8$ cm³

2 The arrows show the length, breadth and height of each cuboid. Calculate the volume of these cuboids using the rule $V = lbh$.

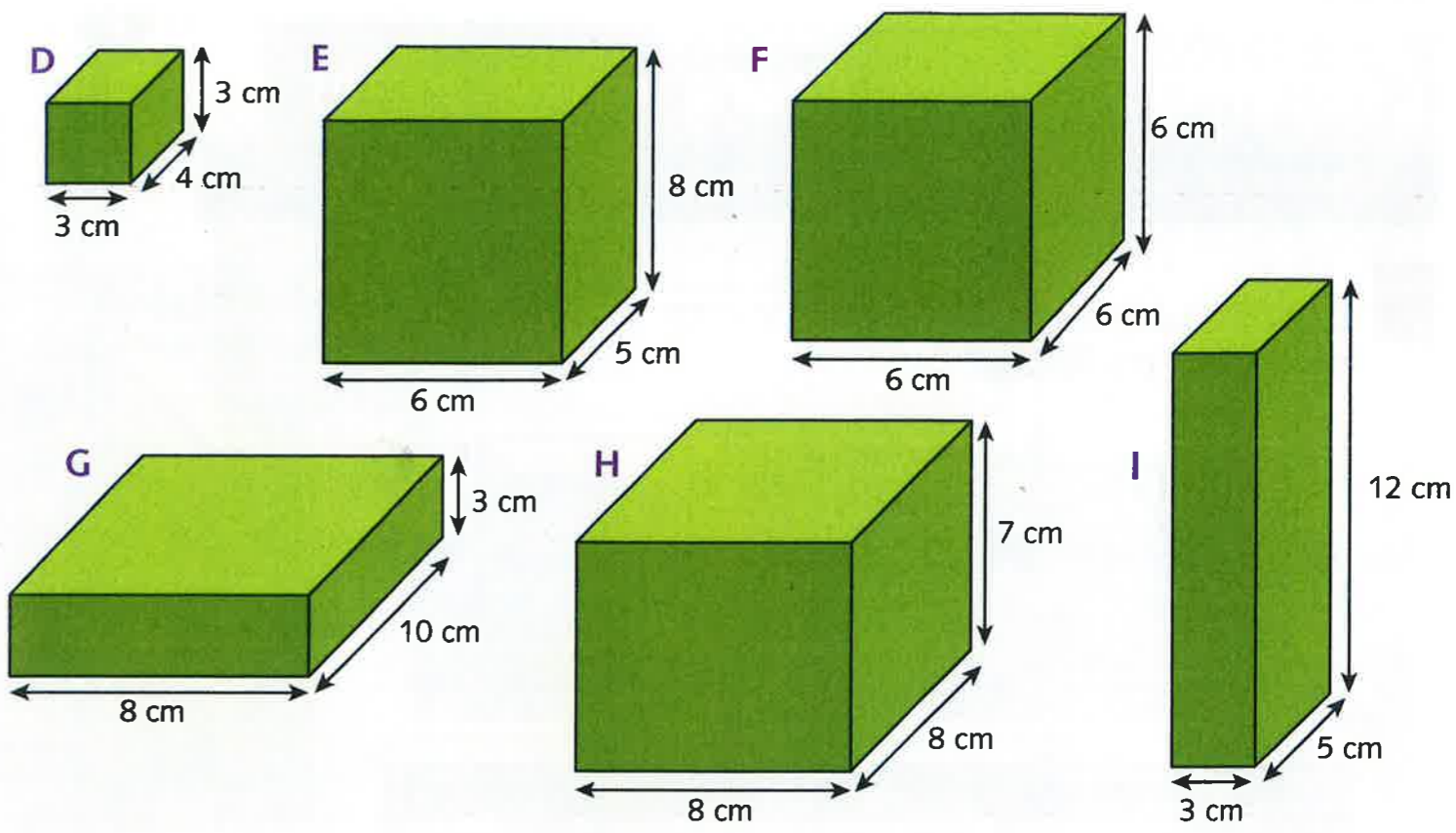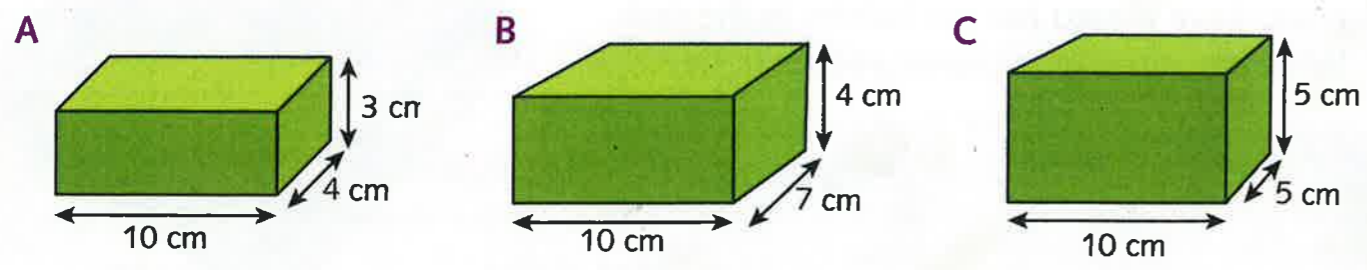A — 6 cm, 3 cm, 2 cm
B — 5 cm, 3 cm, 4 cm
C — 6 cm, 1 cm, 6 cm
D — 2 cm, 3 cm, 10 cm

Example

3 cm
5 cm
2 cm

$V = lbh$

$= 5 \times 2 \times 3$

$= 30$ cm³

Challenge 2

**1** Calculate the volume of these cubes and cuboids using the rule $V = lbh$.

A — 10 cm, 3 cm, 4 cm
B — 10 cm, 4 cm, 7 cm
C — 10 cm, 5 cm, 5 cm

D — 3 cm, 4 cm, 3 cm
E — 6 cm, 5 cm, 8 cm
F — 6 cm, 6 cm, 6 cm
G — 8 cm, 3 cm, 10 cm
H — 8 cm, 8 cm, 7 cm
I — 3 cm, 5 cm, 12 cm

2 Calculate the volume of these large containers in cubic metres. Write them in order, smallest to largest.

A — 5 m, 12 m, 5 m
B — 8 m, 10 m, 5 m
C — 4 m, 11 m, 6 m
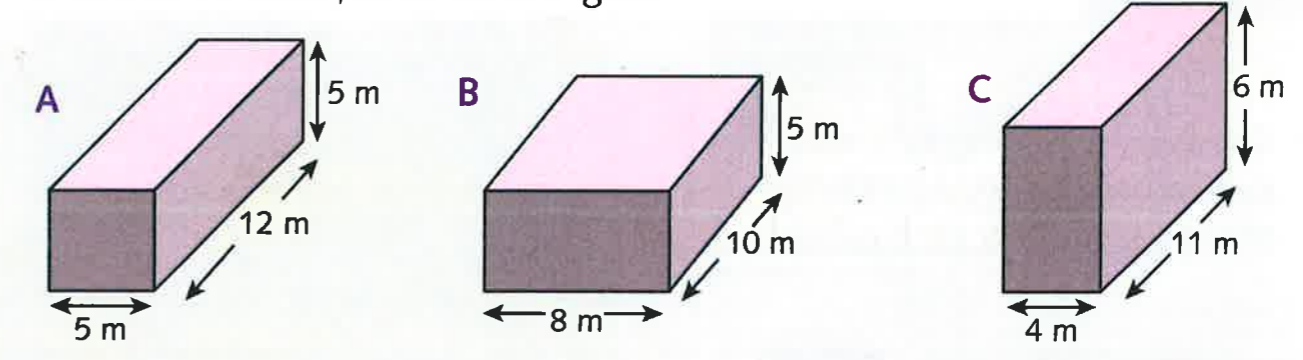
Challenge 3

1 A normal 1–6 dot dice has edges of 2 cm. Work out how many dice will fit into this box.

20 cm, 20 cm, 10 cm
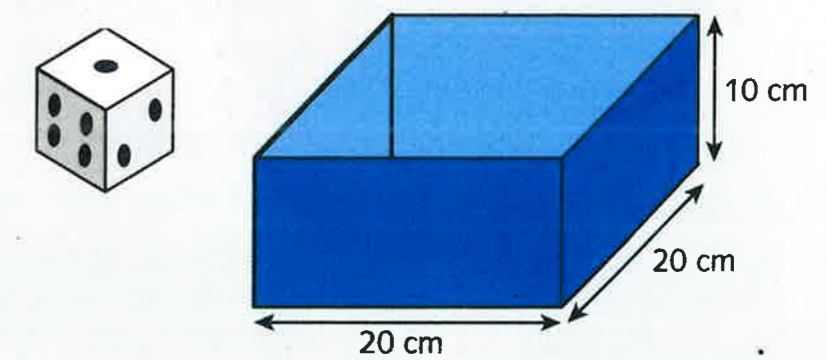
2 A cube has edges of 4 cm. Draw a diagram of a cuboid that will hold 100 of these cubes. Label the dimensions to show its length, breadth and height.