## Calculating and Estimating Volume

I can estimate and calculate the volume of cubes and cuboids.

1. Calculate the volume of these shapes.

| a) <br> Each small cube is a cubic centimetre. <br> volume $=$ | b) <br> Each small cube is a cubic metre. <br> volume $=$ <br> $\mathrm{m}^{3}$ |
| :---: | :---: |
| c) <br> volume $=$ <br> $\mathrm{cm}^{3}$ | d) <br> volume $=$ $\mathrm{m}^{3}$ |
| e) <br> volume $=$ <br> $\mathrm{cm}^{3}$ | f) <br> volume $=$ <br> $\mathrm{m}^{3}$ |

2. Estimate the volume of these shapes.

3. The volume of a cuboid is $36 \mathrm{~cm}^{3}$. The height of the cuboid is 6 cm and the width is 2 cm . What is the measurement of the other side?
4. A cuboid has a volume of $60 \mathrm{~cm}^{3}$. Place a tick by all the dimensions which the cuboid could be.

| $12 \mathrm{~cm} \times 3 \mathrm{~cm} \times 4 \mathrm{~cm}$ | $\boxed{ }$ | $\boxed{10 \mathrm{~cm} \times 3 \mathrm{~cm} \times 2 \mathrm{~cm}}$ | $\square$ |
| :--- | :--- | :--- | :--- |
| $20 \mathrm{~cm} \times 3 \mathrm{~cm} \times 1 \mathrm{~cm}$ | $\square$ | $\boxed{\mathrm{~cm} \times 6 \mathrm{~cm} \times 2 \mathrm{~cm}}$ | $\square$ |
| $6 \mathrm{~cm} \times 2 \mathrm{~cm} \times 2 \mathrm{~cm}$ | $\square$ | $8 \mathrm{~cm} \times 3 \mathrm{~cm} \times 2 \mathrm{~cm}$ | $\square$ |

## Calculating and Estimating Volume Answers

1. Calculate the volume of these shapes.
a. $20 \mathrm{~cm}^{3}$
b. $36 m^{3}$
c. $84 \mathrm{~cm}^{3}$
d. $192 m^{3}$
e. $32 \mathrm{~cm}^{3}$
f. $800 \mathrm{~m}^{3}$
2. Estimate the volume of these shapes.
a. $16 \mathrm{~cm}^{3}$
b. $27 m^{3}$
c. $14 \mathrm{~cm}^{3}$
d. $24 m^{3}$
3. The volume of a cuboid is $36 \mathrm{~cm}^{3}$. The height of the cuboid is 6 cm and the width is 2 cm . What is the measurement of the other side?
3 cm
4. A cuboid has a volume of $60 \mathrm{~cm}^{3}$. Place a tick by all the dimensions which the cuboid could be.

| $12 \mathrm{~cm} \times 3 \mathrm{~cm} \times 4 \mathrm{~cm}$ |  | $10 \mathrm{~cm} \times 3 \mathrm{~cm} \times 2 \mathrm{~cm}$ | $\checkmark$ |
| :---: | :---: | :---: | :---: |
| $20 \mathrm{~cm} \times 3 \mathrm{~cm} \times 1 \mathrm{~cm}$ | $\checkmark$ | $5 \mathrm{~cm} \times 6 \mathrm{~cm} \times 2 \mathrm{~cm}$ | $\checkmark$ |
| $6 \mathrm{~cm} \times 2 \mathrm{~cm} \times 2 \mathrm{~cm}$ |  | $8 \mathrm{~cm} \times 3 \mathrm{~cm} \times 2 \mathrm{~cm}$ |  |

