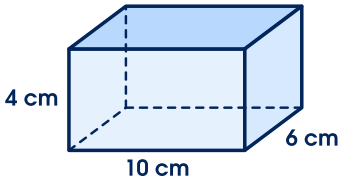
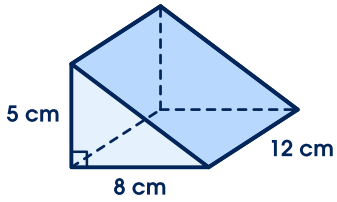
GCSE FOUNDATION · REVISION MAT 2

Volume of prisms

1 Work out the volume of this cuboid.



2 Work out the volume of this triangular prism.

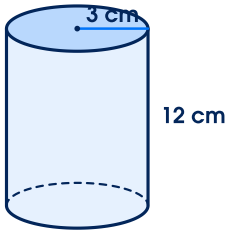


3 A cylinder has radius 4 cm and height 6 cm.

Cat says the volume is $\pi \times 4 \times 6 = 75.4\ cm^3$

Explain the mistake Cat has made.

4 Show that the volume of this cylinder is 339.3 cm^3, correct to 1 decimal place.



5 A box is 12 cm by 9 cm by 6 cm.

How many cubes with edges 3 cm will fit exactly inside the box?

6 Tank A is a cuboid 60 cm long and 40 cm wide. It holds water to a depth of 15 cm.

All the water is poured into tank B, which is 50 cm long and 36 cm wide.

Work out the depth of water in tank B.

Mr&Mrs MATHS

1 $10 \times 6 \times 4 = \mathbf{240\ cm^3}$

2 Cross-section $= \frac{1}{2} \times 8 \times 5 = 20\ cm^2$

Volume $= 20 \times 12 = \mathbf{240\ cm^3}$

3 The cross-section is a circle, area $= \pi r^2$, so the radius must be squared.

$\pi \times 4^2 \times 6 = \mathbf{301.6\ cm^3}$

ANSWERS · REVISION MAT 2

Volume of prisms

4 $\pi \times 3^2 \times 12 = 339.292...$

$= \mathbf{339.3\ cm^3}$ ✓

5 $4 \times 3 \times 2 = \mathbf{24\ cubes}$

6 Volume $= 60 \times 40 \times 15 = 36\,000\ cm^3$

Depth $= 36\,000 \div (50 \times 36) = \mathbf{20\ cm}$

Mr&Mrs MATHS