# Volume and capacity

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

**1.** Find volume of a 7 cm by 5 cm by 4 cm cuboid. [2 marks]

$7 \times 5 \times 4 = 140$.

**Answer:** 140 $cm^3$.

**2.** A prism cross-section has area 18 $cm^2$ and length 12 cm. Find volume. [2 marks]

$18 \times 12 = 216$.

**Answer:** 216 $cm^3$.

**3.** A triangular prism has cross-section base 8 cm, perpendicular height 3 cm and length 9 cm. Find volume. [2 marks]

$(\frac{1}{2} \times 8 \times 3) \times 9 = 108$.

**Answer:** 108 $cm^3$.

**4.** A cylinder has diameter 6 cm and height 10 cm. Find exact volume. [2 marks]

Radius $= 3$ cm.

$V = \pi(3)^2(10) = 90\pi$.

**Answer:** $90\pi$ $cm^3$.

**5.** An internal tank 1.5 m by 0.8 m by 0.6 m is 75% full. Find water volume in litres. [2 marks]

Full volume $= 0.72$ $m^3 = 720$ L.

$0.75 \times 720 = 540$ L.

**Answer:** 540 L.

**6.** A cylinder has volume $200\pi$ $cm^3$ and radius 5 cm. Find height. [2 marks]

$200\pi = \pi(5)^2 h = 25\pi h$.

$h = 8$ cm.

**Answer:** 8 cm.