

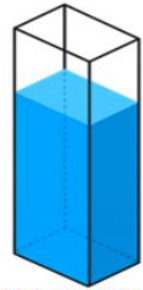
Volume of a Cuboid – Finding Missing Volume

1) Each container is a cuboid. Find the volume of water needed to fill the container.
Give your answer in cm^3 .

Base: 100 mm × 60 mm

Total height: 400 mm

Water height: 350 mm



Use this diagram for help

2) Each container is a cuboid. Find the volume of water needed to fill the container.
Give your answer in cm^3 .

Base: 90 mm × 40 mm

Total height: 300 mm

Water height: 220 mm

3) Each container is a cuboid. Find the volume of water needed to fill the container.
Give your answer in cm^3 .

Base: 120 mm × 50 mm

Total height: 500 mm

Water height: 460 mm

4) Each container is a cuboid. Find the volume of water needed to fill the container.
Give your answer in cm^3 .

Base: 70 mm × 80 mm

Total height: 360 mm

Water height: 300 mm

5) Each container is a cuboid. Find the volume of water needed to fill the container.
Give your answer in cm^3 .

Base: 110 mm × 90 mm

Total height: 450 mm

Water height: 400 mm

6) Each container is a cuboid. Find the volume of water needed to fill the container.
Give your answer in cm^3 .

Base: 60 mm × 55 mm

Total height: 250 mm

Water height: 210 mm

1) Base: 100 mm × 60 mm

Total height: 400 mm

Water height: 350 mm

Step 1 – Extra height

$$400 - 350 = 50 \text{ mm}$$

Step 2 – Base area

$$100 \times 60 = 6000 \text{ mm}^2$$

Step 3 – Volume to add (mm³)

$$6000 \times 50 = 300\,000 \text{ mm}^3$$

Step 4 – Convert to cm³

$$300\,000 \div 1000 = 300 \text{ cm}^3$$

✅ Answer: 300 cm³

2) Base: 90 mm × 40 mm

Total height: 300 mm

Water height: 220 mm

Step 1 – Extra height

$$300 - 220 = 80 \text{ mm}$$

Step 2 – Base area

$$90 \times 40 = 3600 \text{ mm}^2$$

Step 3 – Volume to add

$$3600 \times 80 = 288\,000 \text{ mm}^3$$

Step 4 – Convert

$$288\,000 \div 1000 = 288 \text{ cm}^3$$

✅ Answer: 288 cm³

3) Base: 120 mm × 50 mm

Total height: 500 mm

Water height: 460 mm

Step 1 – Extra height

$$500 - 460 = 40 \text{ mm}$$

Step 2 – Base area

$$120 \times 50 = 6000 \text{ mm}^2$$

Step 3 – Volume to add

$$6000 \times 40 = 240\,000 \text{ mm}^3$$

Step 4 – Convert

$$240\,000 \div 1000 = 240 \text{ cm}^3$$

✅ Answer: 240 cm³

4) Base: 70 mm × 80 mm

Total height: 360 mm

Water height: 300 mm

Step 1 – Extra height

$$360 - 300 = 60 \text{ mm}$$

Step 2 – Base area

$$70 \times 80 = 5600 \text{ mm}^2$$

Step 3 – Volume to add

$$5600 \times 60 = 336\,000 \text{ mm}^3$$

Step 4 – Convert

$$336\,000 \div 1000 = 336 \text{ cm}^3$$

✅ Answer: 336 cm³

5) Base: 110 mm × 90 mm

Total height: 450 mm

Water height: 400 mm

Step 1 – Extra height

$$450 - 400 = 50 \text{ mm}$$

Step 2 – Base area

$$110 \times 90 = 9900 \text{ mm}^2$$

Step 3 – Volume to add

$$9900 \times 50 = 495\,000 \text{ mm}^3$$

Step 4 – Convert

$$495\,000 \div 1000 = 495 \text{ cm}^3$$

✅ Answer: 495 cm³

6) Base: 60 mm × 55 mm

Total height: 250 mm

Water height: 210 mm

Step 1 – Extra height

$$250 - 210 = 40 \text{ mm}$$

Step 2 – Base area

$$60 \times 55 = 3300 \text{ mm}^2$$

Step 3 – Volume to add

$$3300 \times 40 = 132\,000 \text{ mm}^3$$

Step 4 – Convert

$$132\,000 \div 1000 = 132 \text{ cm}^3$$

✅ Answer: 132 cm³
