

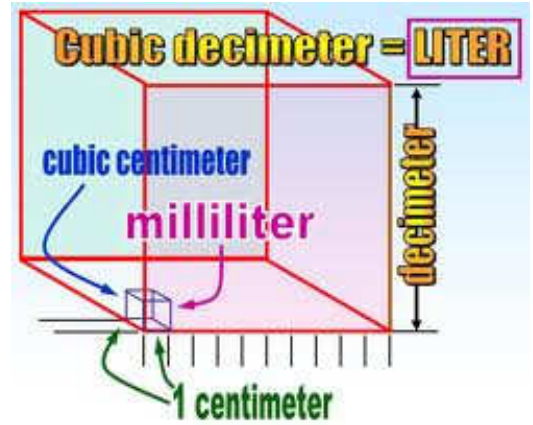
6.3 Volumes of Solids

Volume is the quantity of space that an object occupies

Capacity is the volume of the hollow part of an object.

A) The main unit of volume is the cubic meter (m^3). It corresponds to the space enclosed in a cube with edge 1m.

Length (m) $\xrightarrow{\cdot m}$ Area (m^2) $\xrightarrow{\cdot m}$ Volume (m^3)

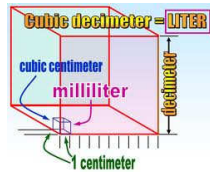


B) The cubic decimetre (dm^3) corresponds to a cube with edge 1 dm (10 cm)



1 dm^3 = 1 litre

1 L of water = 1 kg at standard temperature and pressure



C) 1 m^3 = 1 KL
1 dm^3 = 1 L
1 cm^3 = 1 mL

Examples

Convert each of the following:

- 85 dm^3 = _____ cm^3
- 4560 cm^3 = _____ m^3
- 0.65 dam^3 = _____ dm^3
- 4086 m^3 = _____ hm^3
- 0.0169 hm^3 = _____ mm^3

Convert each of the following:

- 1 m^3 = _____ L
- 7 dm^3 = _____ L
- 2.56 L = _____ dm^3
- 0.35 KL = _____ dm^3
- 2400 mL = _____ mm^3
- 1 cm^3 = _____ dm^3 = _____ L = _____ mL

Practice:
page 190 # 2;
page 192 # 9.

