

## Liquid measurements

- To revise your knowledge do the revision

### The relationship between cubic centimeter and milliliter.

- Do the activity 01.
- When you do the activity you can understand

$$10\text{cm}^3 = 10\text{ml} \quad \text{and} \quad 20\text{cm}^3 = 20\text{ml}$$

According to that,

$$1 \text{ Cubic centimeter} = 1 \text{ milliliter}$$

$$1\text{cm}^3 = 1\text{ml}$$

### Example Number 01

The length, breadth and height of a glass container which is filled with fruit juice are 30cm, 25cm and 10cm

- Find the volume of the container in cubic centimeters?
- What is the capacity of it in milliliters?
- What is the capacity of it in liters?
- If that juice is used to make small fruit juice bottle with capacity 75ml, find the total number of small bottle made by using the whole volume of fruit juice?

### Answers

- Volume of the container  $= 30\text{cm} \times 25\text{cm} \times 10\text{cm}$   
 $= 7500\text{cm}^3$
- Capacity of container in milliliters  $= 7500\text{ml}$
- Capacity of the container in liters.  $= 75\text{l}$
- Number of small fruit juice bottles  $= 7500 \div 75$   
 $= 100$

### Example Number 02

The volume of water included in a cubic shape container is 96l if the length and breadth of the base are 80cm and 60cm find the height of water level?

### Answers.

Volume of water = 96l

$$= 96000\text{ml} = 96000\text{cm}^3$$

$$80 \times 60 \times h = 96000\text{cm}^3$$

$$h = \frac{96000}{80 \times 60} \text{ cm}^3$$

$$80 \times 60$$

$$h = 20\text{cm}$$

So height of the water level is 20cm.

- According to that do the exercises 9.1

#### Relationship between liter and cubic meter

$$1 \text{ cubic meter} = 1000 \text{ liters}$$

$$1\text{m}^3 = 1000\text{l}$$

#### Example Number 03

Find the volume of a cube with a side length 1m?

#### Answers

$$\text{Volume} = 1\text{m} \times 1\text{m} \times 1\text{m}$$

$$= 100\text{cm} \times 100\text{cm} \times 100\text{cm}$$

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

$$= 1000\,000\text{ml}$$

#### Example Number 04

Length , breadth and height of a water tank is 2m,1.5m and 1m

- Find the capacity of the tank in liters?
- If house hold domestic usage of water per day is 150l how many days can they use the amount of water?

#### Answers

$$\begin{aligned}\text{I. Capacity} &= 2 \times 1.5 \times 1 \\ &= 3\text{m}^3 \\ &= 3000\text{l}\end{aligned}$$

$$\begin{aligned}\text{II. Number of days} &= \frac{3000\text{l}}{150} \\ &= 20 \text{ days}\end{aligned}$$