



Class-5

Subject-Mathematics

Chapter-11

Measurement

Lecture-10

Creative Question

1. A family needs 36 L drinking water in 3 days.

a. How many deciliters of water do they need in a day?

b. How many centiliters of water do they need in 4 days?

Solution:

a) In 3 days a family needs drinking water = 36 L

$$\begin{aligned}\therefore \text{“ 1 “ “ “ “ “ “ “} &= (36 \div 3) \text{ L} \\ &= 12 \text{ L} \\ &= (12 \times 10) \text{ dl } [\because 1\text{L} = 10 \text{ dl}] \\ &= 120 \text{ dl}\end{aligned}$$

Ans: 120 dl.

b) From 'a' we get,

In 1 days a family needs drinking water = 120 dl

$$\begin{aligned}\therefore \text{“ 4 “ “ “ “ “ “ “} &= (120 \times 4) \text{ dl} \\ &= 480 \text{ dl} \\ &= (480 \times 10) \text{ cl } [\because 1\text{dl} = 10 \text{ cl}] \\ &= 4800 \text{ cl}\end{aligned}$$

Ans: 4800 cl.

2. 1000 ml of water hold in a bottle.

- a. How many liters of water will hold in 15 similar bottles?**
- b. It is needed to fill a bucket by 30 bottles of with 500 ml water. How many liters of water will hold in the bucket?**
- c. If you take out 2 liters and 500 ml of water from the bucket, how much water will be remain?**

Solution:

a) 1 bottle contains = 1000 ml

$$\begin{aligned}\therefore 15 \text{ " " } &= (1000 \times 15) \text{ ml} \\ &= 15000 \text{ ml} \\ &= (15000 \div 1000) \text{ L } [\because 1 \text{ ml} = \frac{1}{1000} \text{ L}] \\ &= 15 \text{ L}\end{aligned}$$

Ans: 15 L.

b) 1 bottle contains = 500 ml

$$\begin{aligned}\therefore 30 \text{ " " } &= (500 \times 30) \text{ ml} \\ &= 15000 \text{ ml} \\ &= (15000 \div 1000) \text{ L } [\because 1 \text{ ml} = \frac{1}{1000} \text{ L}] \\ &= 15 \text{ L}\end{aligned}$$

Ans: 15 L.

c) Here, 2L 500 ml = 2L + (500 ÷ 1000) L [$\because 1 \text{ ml} = \frac{1}{1000} \text{ L}$]

$$\begin{aligned}&= 2\text{L} + 0.5\text{L} \\ &= 2.5 \text{ L}\end{aligned}$$

\therefore If I take out 2.5 liters of water from the bucket, water will remain

$$\begin{aligned}&= (15.0 - 2.5) \text{ L} \\ &= 12.5 \text{ L}\end{aligned}$$

Ans: 12.5 L.

3. The length of one side square region is 41 m.

a. What is the area of the square region?

b. If the length is 1 m least, what will be the area of the region?

c. If the length is extending 1 m and breadth is reducing 1 m, what will be the area of the region?

Solution:

a) Given,

Side of a square = 41 m

We know,

$$\begin{aligned}\text{Area} &= \text{Side} \times \text{Side} \\ &= (41 \times 41) \text{ Sq. m.} \\ &= 1681 \text{ Sq. m.}\end{aligned}$$

Ans: 1681 Sq. m.

b) If the length is 1m least then length = (41- 1) m = 40 m

We know,

$$\begin{aligned}\text{Area} &= \text{Side} \times \text{Side} \\ &= (40 \times 40) \text{ Sq. m.} \\ &= 1600 \text{ Sq. m.}\end{aligned}$$

Ans: 1600 Sq. m.

c) If the length is extending 1 m and breadth is reducing 1 m then,

$$\text{Length} = (41 + 1) \text{ m} = 42 \text{ m}$$

$$\text{Breadth} = (41 - 1) \text{ m} = 40 \text{ m}$$

We know,

$$\begin{aligned}\text{Area} &= \text{Length} \times \text{Breadth} \\ &= (42 \times 40) \text{ Sq. m.} \\ &= 1680 \text{ Sq. m.}\end{aligned}$$

Ans: 1680 Sq. m.

Exercise (Do yourself)

1. Mahin goes to school on foot in 25 minutes walking 20 meters per minutes.

- a. What is the distance from his house to school?
- b. How much time will he take if he walks 25 m per minutes?
- c. Convert the distance from house to school in km.

2. Mr. Jalal bought 4.5 kg rice, 9 hg of vegetables and 2100 g of fish.

- a. Write 9 hg in kg.
- b. Write 2100 g in kg.
- c. How many kg of items did he buy?