

# Assignments OF Mensuration Exercise 4

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## Question 1

Given a cuboid tank, in which situation will you find surface area and in which situation volume.

- (a) To find how much it can hold.
- (b) Number of paint bottle required to paint it.
- (c) To find the number of smaller tanks that can be filled with water from it.

## Question 2

Compare the volumes

- a) Cube (side =12 cm)

Cuboid (L=11 cm, B=12 cm, H=13 cm)

- b) Cylinder ( r=10 cm , H=14 cm)

Cuboid (L=10 cm, B=11 cm, H=14 cm)

## Question 3

Find following

- a) the height of a cuboid whose base area is  $180 \text{ cm}^2$  and volume is  $900 \text{ cm}^3$ ?
- b) The side of cube whose volume is  $64 \text{ m}^3$
- c) Volume of the cylinder whose base area is  $20 \text{ cm}^2$  and height is 10 cm

## Question 4

A cuboid is of dimensions  $60\text{ cm} \times 54\text{ cm} \times 30\text{ cm}$ . How many small cubes with side  $12\text{ cm}$  can be placed in the given cuboid?

### Question 5

Find the height of the cylinder whose volume is  $2.54\text{ m}^3$  and diameter of the base is  $140\text{ cm}$ ?

### Question 6

A water tank is in the form of cuboid whose length is  $1.5\text{ m}$ , height is  $2\text{ m}$  and Breadth is  $7\text{ m}$ . Find the quantity of water in litres that can be stored in the tank?

### Question 7

If each edge of a cube is quadrupled,

- (i) how many times will its surface area increase?
- (ii) how many times will its volume increase?

### Question 8

Water is pouring into a cuboidal reservoir at the rate of  $60$  liters per minute. If the volume of reservoir is  $108\text{ m}^3$ , find the number of hours it will take to fill the reservoir.

### Question 9

If Length, Breadth, Height of a cuboid is tripled,

- (i) how many times will its surface area increase?
- (ii) how many times will its volume increase?

### Question 10

If radius of cylinder is tripled and height remains same

- (i) how many times will its surface area increase?

(ii) how many times will its volume increase?

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