

## Volume

### A. Choose the correct answer:

1. The volume of a cube is found by

- a) length  $\times$  breadth
- b) side  $\times$  side
- c) side  $\times$  side  $\times$  side
- d) length  $\times$  height

2. What is the volume of a cube with side 4 cm

- a) 64 cm<sup>3</sup>
- b) 16 cm<sup>3</sup>
- c) 12 cm<sup>3</sup>
- d) 8 cm<sup>3</sup>

3. The correct unit to measure volume is

- a) cm
- b) cm<sup>2</sup>
- c) cm<sup>3</sup>
- d) m

4. The volume of a cuboid is calculated by

- a) length + breadth + height
- b) length  $\times$  breadth  $\times$  height
- c)  $2 \times (\text{length} + \text{breadth})$
- d) side  $\times$  side

5. Which of these objects is best measured in volume

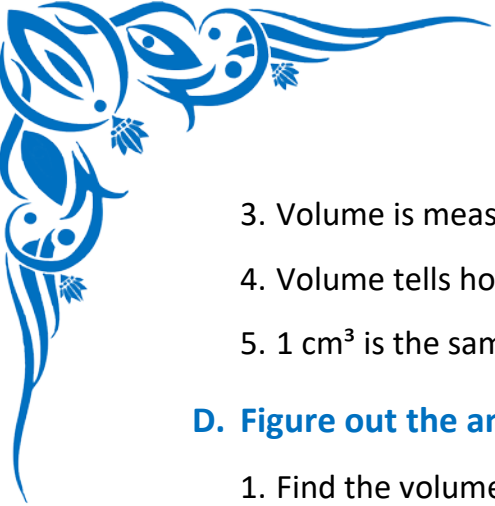
- a) pencil
- b) box
- c) rope
- d) book cover

### B. Write the Missing Terms to Complete the Sentences:

1. Volume is the amount of \_\_\_\_\_ an object occupies
2. The unit of volume is always in \_\_\_\_\_ units
3. Volume of a cuboid = length  $\times$  \_\_\_\_\_  $\times$  height
4. A cube has all its sides \_\_\_\_\_
5. A box with length 5 cm breadth 4 cm and height 3 cm has volume \_\_\_\_\_ cm<sup>3</sup>

### C. Mark each sentence with a True (✓) or False (X):

1. Volume of a cube is side  $\times$  side  $\times$  side \_\_\_\_\_
2. A cube and cuboid have the same volume formula \_\_\_\_\_



3. Volume is measured in square units \_\_\_\_\_
4. Volume tells how much space an object takes up \_\_\_\_\_
5.  $1 \text{ cm}^3$  is the same as  $1 \text{ m}^3$  \_\_\_\_\_

**D. Figure out the answers to these questions:**

1. Find the volume of a cuboid with length 6 cm breadth 5 cm and height 4 cm.
2. A cube has side 7 cm Find its volume.
3. A water tank is 10 m long 4 m wide and 3 m high What is its capacity in  $\text{m}^3$ .
4. A wooden block has volume  $120 \text{ cm}^3$  If its length is 6 cm and breadth is 4 cm find the height.
5. A cube has a volume of  $216 \text{ cm}^3$  What is the length of its side.

**E. Challenge yourself with these questions:**

1. A box has length 15 cm breadth 10 cm and height 5 cm Find its volume.
2. A cuboid fish tank is 50 cm long 30 cm wide and 25 cm high Find how much water it can hold.
3. A cube has a side of 9 cm Find its volume.
4. Find the volume of a cuboid with length 12 m breadth 6 m and height 2 m.
5. A container has a volume of  $1000 \text{ cm}^3$  If its length is 10 cm and breadth is 10 cm find the height.