

Exercise

Exercise – 16.1

A) Find the volume of the cuboids with the following dimensions.

1) Length = 18 mm

breadth = 16 mm

height = 4 mm

Volume of a cuboid = length x Breadth x height

= 18 mm x 16 mm x 4 mm

Answer = 1152 cuboid . mm

2) Length = 15 cm

Breadth = 8 cm

Height = 7 cm

Volume of a cuboid = Length x breadth x height

= 15 cm x 8 cm x 7 cm

Answer = 840 cuboid . mm

3) length = 7 cm

Breadth = 3 cm

Height = 14 cm

Volume of a cuboid = length x breadth x height

= 7 cm x 3 cm x 14 m

Answer = 294 cuboid . mm

B) Measure and calculate volume of the following objects.

1) Length = 5cm

Breadth = 2cm

Height = 1 cm

Volume of a cuboid = length x breadth x height

$$2 \times 5 \times 1$$

$$= 10 \text{ cuboid . cm}$$

2) Length = 8 cm

Breadth = 8 cm

Height = 8 cm

Volume of a cuboid = length x breadth x height

$$= 8 \times 8 \times 8$$

$$= 512 \text{ cuboid . cm}$$

3) length = 8

Breadth = 3

Height = 6

Volume of a cuboid = length x breadth x height

$$= 6 \times 3 \times 8$$

$$= 144 \text{ cuboid . cm.}$$

4) length = 20 mm

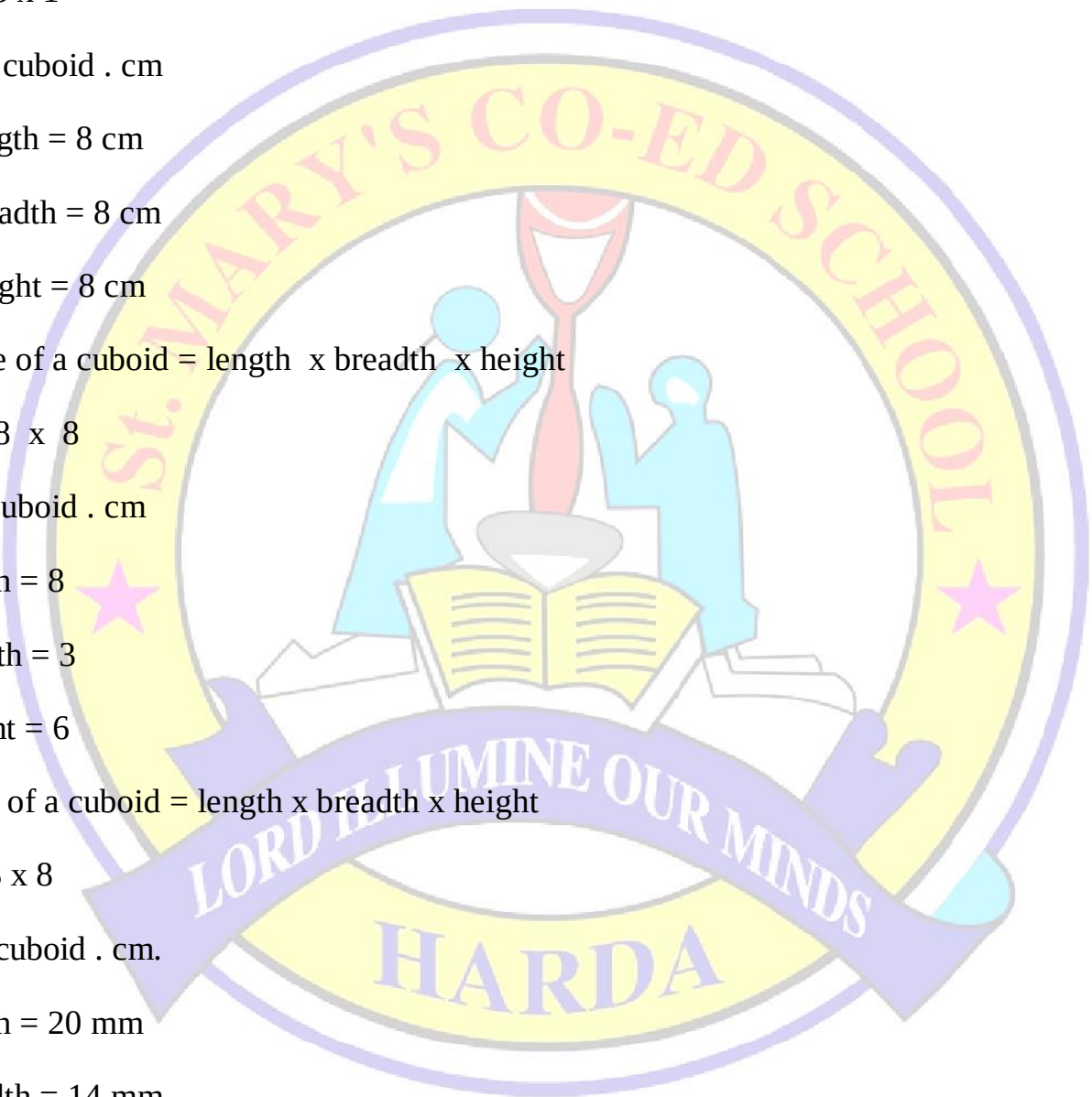
Breadth = 14 mm

Height = 14 mm

Volume of a cuboid = length x breadth x height

$$14 \times 14 \times 20$$

$$= 3920 \text{ cuboid . mm}$$



C) Complete the table .

|    | Length      | Breadth | height     | volume                 |
|----|-------------|---------|------------|------------------------|
| 1) | 14 cm       | 8 cm    | 7 cm       | <u>784 cuboid . cm</u> |
| 2) | 8 m         | 5 m     | <u>9 m</u> | 360 cuboid . m         |
| 3) | <u>7 cm</u> | 6 mm    | 15 mm      | 630 cuboid . mm        |

D) Mrs. Rao's bank locker is 15 cm in length , 8 cm in breadth and 12 cm in height . what is the volume of the locker ?

Solution = Length = 15 cm ,

Breadth = 8 cm

Height = 12 cm

Volume of a cuboid = length x breadth x height

$$= 15 \text{ cm} \times 8 \text{ cm} \times 12 \text{ cm}$$

$$= 1440 \text{ cuboid . cm}$$

E) Each side of a cube is 13 cm . find its volume .

Solution = Side = 13 cm

Volume of cube = side x side x side

$$= 13 \text{ cm} \times 13 \text{ cm} \times 13 \text{ cm}$$

$$= 2197 \text{ cuboid . cm}$$

F) A swimming pool of length = 25 m , breadth = 15 m and height = 2 m is three fourths full of water . Find the volume of water in the pool .

Solution = Length = 25 m

Breadth = 15 m

Height = 2 m

Volume of cuboid = length x Breadth x height

$$= 25 \text{ m} \times 15 \text{ m} \times 2 \text{ m}$$

$$= 750 \text{ cuboid . m}$$

Then ,  $\frac{3}{4}$  of 750 cuboid . m

$$= \frac{3}{4} \times 750 = \frac{2250}{4} = 562.5 \text{ cuboid .m}$$

G) The area of rectangular stage is 750 sq. m. if its height is 1.5 m , find its volume.

Solution = Now the volume of a cuboid is

length x breadth x height

Area = 1breadth = 750 sq.m

Height = 1.5 m

Volume = length x breadth x height

$$= ( 750 \text{ m } ) \times ( 1.5 \text{ m } )$$

Answer = 1125 m

