

Unit # 12 – Volume
Sec: C Word problems

Answers of the given home work

Activity book page : 83-Q.No 1, 2 & 3

Text book page: 95 - Q. No. 1 & 2

(Do the text book problems in your notebook)

***Please check your answers and correct
the wrong ones***

Refer text book pg:95 Q.no1



1. A rectangular tank measuring 30 cm by 20 cm by 10 cm is one-fifth filled with pebbles. Find the volume of the pebbles in cubic centimetres.

Volume of rectangular tank = length x breadth x height

$$= 30\text{cm} \times 20\text{cm} \times 10\text{cm}$$

$$= 600 \times 10\text{cm}^3$$

$$\text{Volume} = 6000\text{cm}^3$$

Volume of pebbles = $\frac{1}{5}$ of 6000cm^3

$$= \frac{1}{5} \times 6000$$

$$= 6000 \div 5$$

$$= 1200\text{cm}^3$$

Refer text book pg:95 Q.no2



2. A rectangular container measures 40 cm by 20 cm by 10 cm. Cubes of ice measuring 5 cm by 4 cm by 2 cm each are placed into the container. How many cubes of ice are needed to completely fill the container?

Volume of rectangular container= length x
breadth x height

$$= 40\text{cm} \times 20\text{cm} \times 10\text{cm}$$

$$= 800 \times 10\text{cm}^3$$

$$\text{Volume} = 8000\text{cm}^3$$

Volume of ice cube= length x breadth x height

$$= 5\text{cm} \times 4\text{cm} \times 2\text{cm}$$

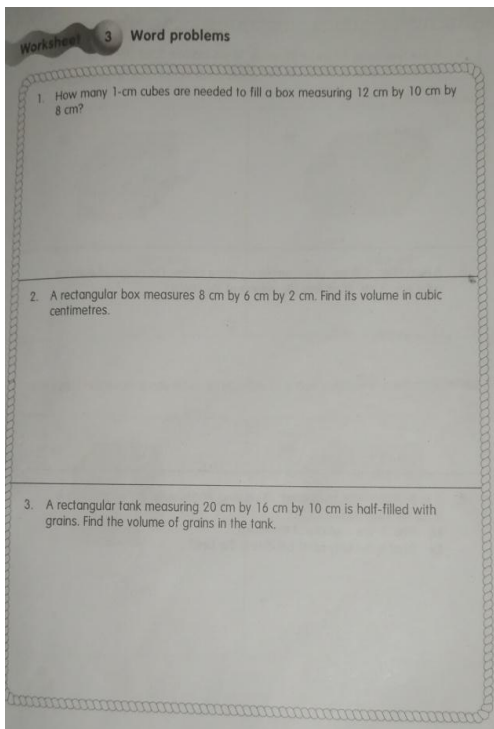
$$= 20 \times 2\text{cm}^3$$

$$\text{Volume} = 40\text{cm}^3$$

$$\text{No. of ice cubes} = 8000 \div 40 = 200 \text{ ice cubes}$$

$$800 \div 4 = 200 \text{ ice cubes}$$

Activity book pg:83



1) $\text{Volume of a box} = \text{length} \times \text{breadth} \times \text{height}$
 $= 12\text{cm} \times 10\text{cm} \times 8\text{cm}$
 $= 120 \times 8\text{cm}^3$
 $\text{Volume} = 960\text{cm}^3$

2) $\text{Volume of rectangular box} = \text{length} \times \text{breadth} \times \text{height}$
 $= 8\text{cm} \times 6\text{cm} \times 2\text{cm}$
 $= 48 \times 2\text{cm}^3$
 $\text{Volume} = 96\text{cm}^3$

3) $\text{Volume of tank} = \text{length} \times \text{breadth} \times \text{height}$
 $= 20\text{cm} \times 16\text{cm} \times 10\text{cm}$
 $= 320 \times 10\text{cm}^3$
 $\text{Volume} = 3200\text{cm}^3$

$\text{volume of grains} = \frac{1}{2} \text{ of } 3200\text{cm}^3$
 $= 3200 \div 2$
 $\text{volume of grains} = 1600\text{cm}^3$