

NEW ERA PUBLIC SCHOOL

Subject $\rightarrow$ Math

Class $\rightarrow$ 5th

SESSION : 2021

Solved Assignment of Unit 3rd

TOPIC $\rightarrow$ FRACTIONS [Math A]

Exercise $\rightarrow$ 22 to 29

- 1) Define fractions: $\rightarrow$ A numerical quantity that is not a whole number is called a fraction e.g. $\frac{1}{2}$, $\frac{3}{7}$ etc.
- 2) Define like fractions: $\rightarrow$ When the denominators of all fractions are same, they are like fractions e.g. $\frac{1}{8}$, $\frac{3}{8}$ etc.
- 3) Define Unlike fractions: $\rightarrow$ When the denominators of all fractions are different, they are unlike fractions e.g. $\frac{1}{6}$, $\frac{1}{2}$ etc.

Exercise $\rightarrow$ 22

Complete the table :

1. Add the fractions.

$$(a) \frac{1}{3} + \frac{1}{3} = \frac{\boxed{1}}{3} + \frac{\boxed{1}}{3} = \frac{\boxed{2}}{3}$$

$$(b) \frac{4}{6} + \frac{1}{6} = \frac{\boxed{4}}{6} + \frac{\boxed{1}}{6} = \frac{\boxed{5}}{\boxed{6}}$$

$$(c) \frac{5}{8} + \frac{2}{8} = \frac{\boxed{5} + \boxed{2}}{\boxed{8}} = \frac{\boxed{7}}{\boxed{8}}$$

2. Subtract the fractions.

$$(a) \frac{9}{10} - \frac{2}{10} = \frac{\boxed{9} - \boxed{2}}{\boxed{10}} = \frac{\boxed{7}}{\boxed{10}}$$

$$(b) \frac{8}{9} - \frac{4}{9} = \frac{\boxed{8} - \boxed{4}}{\boxed{9}} = \frac{\boxed{4}}{\boxed{9}}$$

$$(c) \frac{7}{4} - \frac{4}{4} = \frac{\boxed{7} - \boxed{4}}{\boxed{4}} = \frac{\boxed{3}}{\boxed{4}}$$

Definitions :→

1) Proper fractions :→ Any fraction having its numerator less than the denominator is called a proper fraction. e.g $\frac{1}{3}$, $\frac{6}{7}$, $\frac{3}{11}$.

2) Improper fractions :→ Any number having its numerator greater than or equal to the denominator is called an improper fraction. e.g $\frac{7}{3}$, $\frac{9}{8}$, $\frac{11}{10}$, $\frac{13}{13}$.

3) Unit fractions :→ When a proper fraction has 1 as its numerator, it is called a Unit fraction. e.g $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{10}$.

4) Mixed fraction $\rightarrow$ Whenever a Whole number is combined with a proper fraction, We get a mixed number. e.g $3 + \frac{1}{4} = 3\frac{1}{4}$.

Exercise $\rightarrow$ 23

1) Circle the proper fractions.

$\left(\frac{3}{8}\right)$

$\frac{9}{7}$

$\left(\frac{6}{8}\right)$

$\left(\frac{1}{6}\right)$

2) Circle the improper fractions.

$\left(\frac{11}{9}\right)$

$\frac{11}{13}$

$\left(\frac{13}{11}\right)$

$\frac{9}{11}$

3) Circle the Unit fractions.

$\frac{7}{10}$

$\left(\frac{1}{7}\right)$

$\frac{3}{10}$

$\left(\frac{1}{3}\right)$

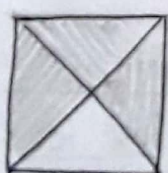
4) Write the mixed number. [practice remaining parts yourself].

(a)



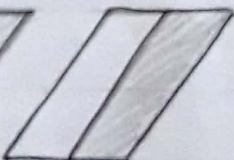
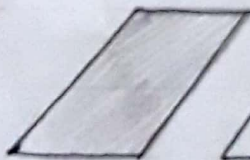
$= 1\frac{1}{4}$

(b)



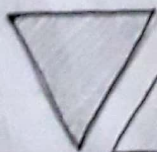
$= 1\frac{3}{4}$

(c)



$= 1\frac{1}{2}$

(d)



$= 3\frac{1}{4}$

(5) Do question no. 5 on book.

Exercise :-> 24

1: Divide. [Do remaining parts yourself].

$$(a) \quad \frac{4}{3} = 3 \overline{) 4} \begin{array}{r} 1 \\ - 3 \\ \hline \end{array}$$

$$= \text{Quotient} \frac{\text{Remainder}}{\text{Divisor}} = Q \frac{R}{D} = 1 \frac{1}{3}$$

$$(d) \quad \frac{5}{3} = 3 \overline{) 5} \begin{array}{r} 1 \\ - 3 \\ \hline \end{array}$$

$$= \text{Quotient} \frac{\text{Remainder}}{\text{Divisor}} = Q \frac{R}{D} = 1 \frac{2}{3}$$

$$(g) \quad \frac{7}{2} = 2 \overline{) 7} \begin{array}{r} 3 \\ - 6 \\ \hline \end{array}$$

$$= \text{Quotient} \frac{\text{Remainder}}{\text{Divisor}} = Q \frac{R}{D} = 3 \frac{1}{2}$$

$$(j) \quad \frac{11}{5} = 5 \overline{) 11} \begin{array}{r} 2 \\ - 10 \\ \hline \end{array}$$

$$= \text{Quotient} \frac{\text{Remainder}}{\text{Divisor}} = Q \frac{R}{D} = 2 \frac{1}{5}$$

$$(m) \frac{10}{9} = 9 \overline{) 10} \begin{array}{r} 1 \\ 9 \\ \hline 1 \end{array}$$

$$= \text{Quotient} \frac{\text{Remainder}}{\text{Divisor}} = Q \frac{R}{D} = 1 \frac{1}{9}$$

2: Divide. [Practice remaining parts yourself]

$$(a) \frac{5}{4} = 4 \overline{) 5} \begin{array}{r} 1 \\ 4 \\ \hline 1 \end{array}$$

$$= Q \frac{R}{D} = 1 \frac{1}{4}$$

$$(d) \frac{8}{3} = 3 \overline{) 8} \begin{array}{r} 2 \\ 6 \\ \hline 2 \end{array}$$

$$= Q \frac{R}{D} = 2 \frac{2}{3}$$

$$(g) \frac{9}{7} = 7 \overline{) 9} \begin{array}{r} 1 \\ 7 \\ \hline 2 \end{array}$$

$$= Q \frac{R}{D} = 1 \frac{2}{7}$$

$$\begin{aligned}
 \text{(j)} \quad \frac{11}{9} &= 9 \overline{) 11} \mid 1 \\
 &\quad \underline{9} \\
 &\quad 2 \\
 &= \frac{22}{9} = 1 \frac{2}{9} \\
 &\quad \text{D} \quad \quad \quad 9
 \end{aligned}$$

$$\begin{aligned}
 \text{(m)} \quad \frac{9}{2} &= 2 \overline{) 9} \mid 4 \\
 &\quad \underline{8} \\
 &\quad 1 \\
 &= \frac{9}{2} = 4 \frac{1}{2} \\
 &\quad \text{D} \quad \quad \quad 2
 \end{aligned}$$

Exercise :→ 25

Express each fraction as an improper fraction. [Practice remaining parts yourself].

$$1. \quad 4 \frac{1}{3}$$

$$\begin{aligned}
 &= 4 \times 3 = 12 \quad \begin{array}{l} \text{[Multiply Whole number and} \\ \text{denominator then add numerator]} \end{array} \\
 &\quad 12 + 1 = 13 \quad \begin{array}{l} \text{[denominator remains same]} \end{array} \\
 &= \frac{13}{3}
 \end{aligned}$$

$$4. \quad 1 \frac{7}{8}$$

$$\begin{aligned}
 &= 1 \times 8 = 8 \quad \begin{array}{l} \text{[Multiply Whole number and deno-} \\ \text{minator then add numerator]} \end{array} \\
 &\quad 8 + 7 = 15
 \end{aligned}$$

$$= \frac{15}{8} \quad [\text{denominator remains same}]$$

$$7. \quad 5 \frac{1}{7}$$

$$5 \times 7 = 35 \quad [\text{Multiply whole number and denominator, then add numerator}]$$

$$35 + 1 = 36$$

$$= \frac{36}{7} \quad [\text{denominator remains same}]$$

$$10. \quad 8 \frac{1}{3}$$

$$8 \times 3 = 24 \quad [\text{Multiply whole number and denominator, then add numerator}]$$

$$24 + 1 = 25$$

$$= \frac{25}{3} \quad [\text{denominator remains same}]$$

$$13. \quad 9 \frac{1}{2}$$

$$9 \times 2 = 18 \quad [\text{Multiply whole number and denominator, then add numerator}]$$

$$18 + 1 = 19$$

$$= \frac{19}{2} \quad [\text{denominator remains same}]$$

$$16) \quad \frac{11}{11}$$

$$11 \times 11 = 121 \quad \left[\begin{array}{l} \text{Multiply whole numbers and deno-} \\ \text{minator, then add numerators} \end{array} \right]$$

$$121 + 1 = 122$$

$$= \frac{122}{11} \quad [\text{denominator remains same}]$$

Exercise $\Rightarrow$ 26

Complete the table.

As Fractions

As Division Sums.

$$1) \quad \frac{5}{12}$$

$$5 \div 12$$

$$2) \quad \frac{20}{40}$$

$$20 \div 40$$

$$3) \quad \frac{3}{7}$$

$$3 \div 7$$

$$4) \quad \frac{15}{8}$$

$$15 \div 8$$

$$5) \quad \frac{0}{9}$$

$$0 \div 9$$

$$6) \quad \frac{11}{23}$$

$$11 \div 23$$

$$7) \quad \frac{0}{7}$$

$$0 \div 7$$

$$8) \quad \frac{11}{11}$$

$$11 \div 11$$

$$9) \quad \begin{array}{r} 21 \\ 87 \end{array}$$

$$21 \div 87$$

$$10) \quad \begin{array}{r} 7 \\ 12 \end{array}$$

$$7 \div 12$$

$$11) \quad \begin{array}{r} 11 \\ 39 \end{array}$$

$$11 \div 39$$

Exercise $\rightarrow$ 27

Convert into a mixed number. [Practice remaining parts yourself].

$$1) \quad \frac{11}{2} = 2 \overline{) 11} \begin{array}{r} 5 \\ 10 \\ 1 \end{array}$$

$$= Q \frac{R}{D} = 5 \frac{1}{2}$$

$$4) \quad \frac{13}{3} = 3 \overline{) 13} \begin{array}{r} 4 \\ 12 \\ 1 \end{array}$$

$$= Q \frac{R}{D} = 4 \frac{1}{3}$$

$$7) \quad \frac{13}{12} = 12 \overline{) 13} \begin{array}{r} 1 \\ 12 \\ 1 \end{array}$$

$$= Q \frac{R}{D} = 1 \frac{1}{12}$$

$$10) \frac{86}{5} = 5 \overline{) 86} \begin{array}{r} 17 \\ 5 \\ \hline 36 \\ 35 \\ \hline 1 \end{array}$$

$$= Q \frac{R}{D} = 17 \frac{1}{5}$$

$$13) \frac{89}{11} = 11 \overline{) 89} \begin{array}{r} 8 \\ 88 \\ \hline 1 \end{array}$$

$$Q \frac{R}{D} = 8 \frac{1}{11}$$

$$16) \frac{97}{18} = 18 \overline{) 97} \begin{array}{r} 5 \\ 90 \\ \hline 7 \end{array}$$

$$= Q \frac{R}{D} = 5 \frac{7}{18}$$

Exercise :-> 28

1. Multiply the given fractions first with 2, then with 3 to get equivalent fractions

(a) $\frac{3}{4}$

sol. Multiply by 2 = $\frac{3}{4} \times \frac{2}{2} = \frac{6}{8}$

Multiply by 3 = $\frac{3}{4} \times \frac{3}{3} = \frac{9}{12}$

$\therefore$ Equivalent fractions of $\frac{3}{4}$ are $\frac{6}{8}$, $\frac{9}{12}$

(d) $\frac{2}{5}$

sol. Multiply by 2 = $\frac{2}{5} \times \frac{2}{2} = \frac{4}{10}$

Multiply by 3 = $\frac{2}{5} \times \frac{3}{3} = \frac{6}{15}$

$\therefore$ Equivalent fractions of $\frac{2}{5}$ are $\frac{4}{10}$, $\frac{6}{15}$

(g) $\frac{3}{5}$

sol. Multiply by 2 = $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10}$

Multiply by 3 = $\frac{3}{5} \times \frac{3}{3} = \frac{9}{15}$

$\therefore$ Equivalent fractions of $\frac{3}{5}$ are $\frac{6}{10}$, $\frac{9}{15}$

(j) $\frac{4}{5}$

sol. Multiply by 2 = $\frac{4}{5} \times \frac{2}{2} = \frac{8}{10}$

Multiply by 3 = $\frac{4}{5} \times \frac{3}{3} = \frac{12}{15}$

$\therefore$ Equivalent fractions of $\frac{4}{5}$ are $\frac{8}{10}$, $\frac{12}{15}$.

2. Cross-multiply to check Whether the fractions of the given pairs are equivalent or not.

Tick ($\checkmark$) the equivalent fractions.

(a) $\frac{2}{7}$ and $\frac{4}{14}$ ☒

sol. $\frac{2}{7} \xrightarrow{\times} \frac{4}{14} = \frac{2 \times 4}{7 \times 14} = \frac{8}{98}$

(d) $\frac{1}{3}$ and $\frac{4}{9}$ ☐

sol. $\frac{1}{3} \xrightarrow{\times} \frac{4}{9} = \frac{1 \times 4}{3 \times 9} = \frac{4}{27}$

(g) $\frac{6}{11}$ and $\frac{3}{22}$ ☐

sol. $\frac{6}{11} \xrightarrow{\times} \frac{3}{22} = \frac{6 \times 3}{11 \times 22} = \frac{18}{242}$

(j) $\frac{5}{16}$ and $\frac{30}{96}$ ☒

sol. $\frac{5}{16} \xrightarrow{\times} \frac{30}{96} = \frac{16 \times 30}{5 \times 96} = \frac{480}{480}$

(m) $\frac{2}{9}$ and $\frac{14}{27}$ ☐

sol. $\frac{2}{9} \xrightarrow{\times} \frac{14}{27} = \frac{9 \times 14}{2 \times 27} = \frac{126}{54}$

Exercise :→ 29

1. Reduce the fractions to the lowest terms.

(a) $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

(c) $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$

(e) $\frac{10}{12} = \frac{10 \div 2}{12 \div 2} = \frac{5}{6}$

(g) $\frac{10}{16} = \frac{10 \div 2}{16 \div 2} = \frac{5}{8}$

2. Simplify the fractions.

$$(a) \frac{3}{9} = \frac{3 \div 3}{9 \div 3} = \frac{\cancel{3}/\cancel{3}}{3\cancel{9}/\cancel{3}} = \frac{1}{3}$$

$$(c) \frac{3}{12} = \frac{3 \div 3}{12 \div 3} = \frac{\cancel{3}/\cancel{3}}{4\cancel{12}/\cancel{3}} = \frac{1}{4}$$

$$(e) \frac{15}{21} = \frac{15 \div 3}{21 \div 3} = \frac{5\cancel{15}/\cancel{3}}{7\cancel{21}/\cancel{3}} = \frac{5}{7}$$

$$(g) \frac{18}{21} = \frac{18 \div 3}{21 \div 3} = \frac{6\cancel{18}/\cancel{3}}{7\cancel{21}/\cancel{3}} = \frac{6}{7}$$

$$(i) \frac{36}{48} = \frac{36 \div 12}{48 \div 12} = \frac{3\cancel{36}/\cancel{12}}{4\cancel{48}/\cancel{12}} = \frac{3}{4}$$

$$(k) \frac{64}{192} = \frac{64 \div 64}{192 \div 64} = \frac{\cancel{64}/\cancel{64}}{3\cancel{192}/\cancel{64}} = \frac{1}{3}$$

TOPIC :→ PERCENTAGE [Math B]

Exercise :→ 55 to 57

Exercise :→ 55

Do Exercise 55 on book.

Exercise :→ 56 Fractions

Find a fraction for each one. Simplify and express the fractions to the lowest terms.

$$1. \quad 50\% = \frac{\cancel{50} \cancel{10} 1}{\cancel{100} \cancel{20} 2}$$

$$= \frac{1}{2}$$

$$3. \quad 20\% = \frac{\cancel{20} 4 1}{\cancel{100} \cancel{20} 5}$$

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

$$5. \quad 90\% = \frac{\cancel{90} \cancel{18} 9}{\cancel{100} \cancel{20} 10}$$

$$= \frac{9}{10}$$

$$7. \quad 80\% = \frac{\cancel{80} \cancel{16} 4}{\cancel{100} \cancel{20} 5}$$

$$= \frac{4}{5}$$

$$9. \quad 70\% = \frac{\cancel{70} \cancel{14} 7}{\cancel{100} \cancel{20} 10}$$

$$= \frac{7}{10}$$

$$11. \quad 100\% = \frac{100}{100}$$

$$= 1$$

Exercise $\rightarrow$ 57

Revision

1. Express as a percentage (%)

$$(a) \quad \frac{12}{100} = 12\%$$

$$(c) \quad \frac{17}{100} = 17\%$$

$$(e) \quad \frac{0}{100} = 0\%$$

$$(g) \quad \frac{105}{100} = 105\%$$

$$(i) \quad \frac{1}{100} = 1\%$$

$$(k) \quad \frac{49}{100} = 49\%$$

2. Express as a fraction with denominator 100.

$$(a) \quad 4\% = \frac{4}{100}$$

$$(c) \quad 36\% = \frac{36}{100}$$

$$(e) \quad 100\% = \frac{100}{100}$$

$$(g) \quad 720\% = \frac{720}{100}$$

$$(i) \quad 28\% = \frac{28}{100}$$

$$(k) \quad 99\% = \frac{99}{100}$$

3. Express as a decimal.

$$(a) \quad 7\% = 0.07$$

$$(c) \quad 71\% = 0.71$$

$$(e) \quad 120\% = 1.20$$

$$(g) \quad 1\% = 0.01$$

$$(i) \quad 81\% = 0.81$$

$$(k) \quad 111\% = 1.11$$

4. Express as a fraction to the lowest terms

$$(a) \quad 68\% = \frac{\cancel{68} \quad \cancel{34} \quad 17}{\cancel{100} \quad \cancel{50} \quad 25} \\ = \frac{17}{25}$$

$$(c) \quad 2\% = \frac{\cancel{2} \quad 1}{\cancel{100} \quad 50} \\ = \frac{1}{50}$$

$$(e) \quad 99\% = \frac{99}{100}$$

$$(g) \quad 150\% = \frac{\cancel{150} \quad \cancel{30} \quad 3}{\cancel{100} \quad \cancel{20} \quad 2} \\ = \frac{3}{2}$$

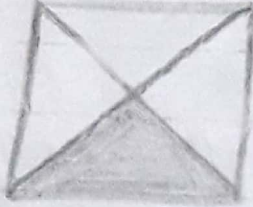
$$(i) \quad 72\% = \frac{\cancel{72} \quad \cancel{36} \quad 18}{\cancel{100} \quad \cancel{50} \quad 25} \\ = \frac{18}{25}$$

$$(k) \quad 4\% = \frac{\cancel{4} \quad \cancel{2} \quad 1}{\cancel{100} \quad \cancel{50} \quad 25}$$

$$= \frac{1}{25}$$

5. Express the shaded part as a fraction and as a percentage.

(a)



$$\text{fraction: } \frac{1}{4}$$

$$\underline{25} \%$$

(b)



$$\text{fraction: } \frac{2}{4}$$

$$\underline{50} \%$$

(c)



$$\text{fraction: } \frac{3}{4}$$

$$\underline{75} \%$$

(d)



$$\text{fraction: } \frac{1}{2}$$

$$\underline{50} \%$$

TOPIC :-> VOLUME

The volume of any object is defined as the amount of space it occupies.

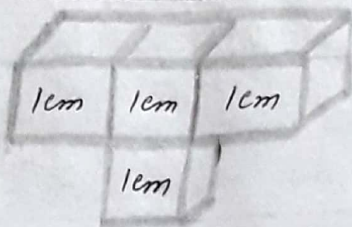
Exercise :-> 82 to 84

Exercise :-> 82.

Find the volume of the given solids.

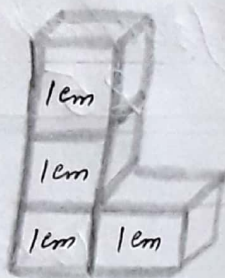
(a)

[Practice remaining parts yourself]



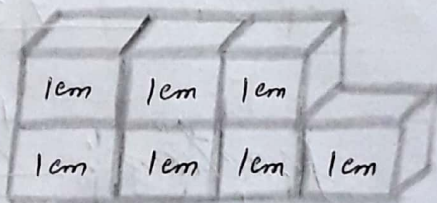
$\therefore$ Volume of the given solid = $1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} = 4 \text{ cu. cm.}$

(c)



$\therefore$ Volume of the given solid = $1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} = 4 \text{ cu. cm.}$

(e)



$\therefore$ Volume of given solid = $1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} = 7 \text{ cu. cm.}$

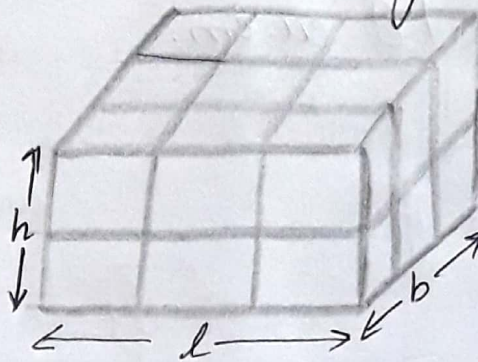
Exercise $\rightarrow$ 83

Volume of a cube can be calculated as below:

$$\begin{aligned} \text{Volume} &= \text{cubes per layer} \times \text{height of cube} \\ &= \text{Length} \times \text{Breadth} \times \text{height} \\ \therefore V &= L \times b \times h. \end{aligned}$$

1. Find the volume in cu.cm. Use the formula, wherever necessary.

(a)



$$\text{Volume of a cube} = l \times b \times h.$$

$$\text{length} = 3 \text{ cm}$$

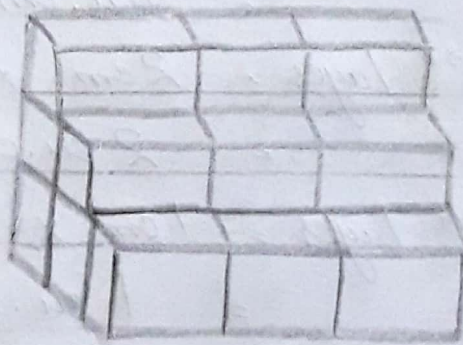
$$\text{breadth} = 3 \text{ cm}$$

$$\text{height} = 2 \text{ cm}$$

$$\therefore \text{Volume} = 3 \text{ cm} \times 3 \text{ cm} \times 2 \text{ cm}$$

$$= 18 \text{ cu.cm.}$$

(c)



$$\text{Volume of a cube} = l \times b \times h.$$

$$\text{Volume of 1st layer} = 3 \times 3 \times 1$$

$$= 9 \text{ cu.cm.}$$

$$\text{Volume of 2nd layer} = 3 \text{ cm} \times 2 \text{ cm} \times 1 \text{ cm}$$

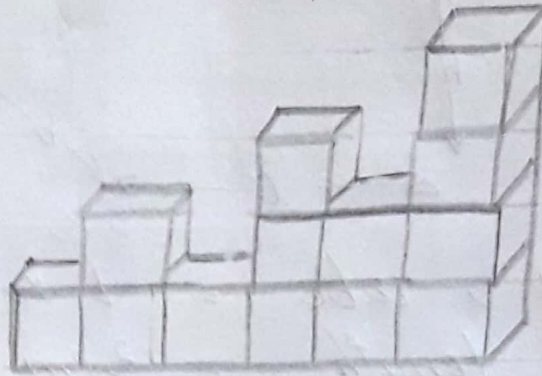
$$= 6 \text{ cu.cm.}$$

$$\text{Volume of 3rd layer} = 3 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm}$$

$$= 3 \text{ cu.cm.}$$

$$\begin{aligned}
 \therefore \text{Total volume of the figure} &= \\
 &= 9 \text{ cu.cm} + 6 \text{ cu.cm} + 3 \text{ cu.cm.} \\
 &= 18 \text{ cu.cm.}
 \end{aligned}$$

(e)



$$\begin{aligned}
 \text{Volume of a cube} &= l \times b \times h \\
 \text{Volume of 1}^{\text{st}} \text{ layer} &= 6 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} \\
 &= 6 \text{ cu.cm.}
 \end{aligned}$$

$$\begin{aligned}
 \text{Volume of 2}^{\text{nd}} \text{ layer} &= 4 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} \\
 &= 4 \text{ cu.cm.}
 \end{aligned}$$

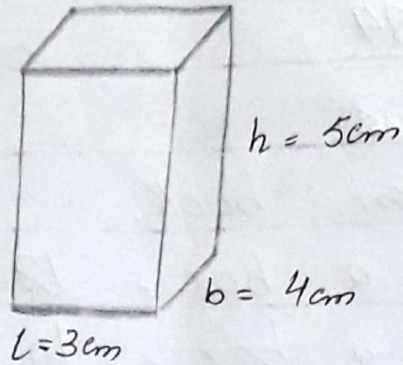
$$\begin{aligned}
 \text{Volume of 3}^{\text{rd}} \text{ layer} &= 2 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} \\
 &= 2 \text{ cu.cm.}
 \end{aligned}$$

$$\begin{aligned}
 \text{Volume of 4}^{\text{th}} \text{ layer} &= 1 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} \\
 &= 1 \text{ cu.cm.}
 \end{aligned}$$

$$\begin{aligned}
 \therefore \text{Total volume of the figure} &= \\
 &= 6 \text{ cu.cm} + 4 \text{ cu.cm} + 2 \text{ cu.cm} + 1 \text{ cu.cm} \\
 &= 13 \text{ cu.cm.}
 \end{aligned}$$

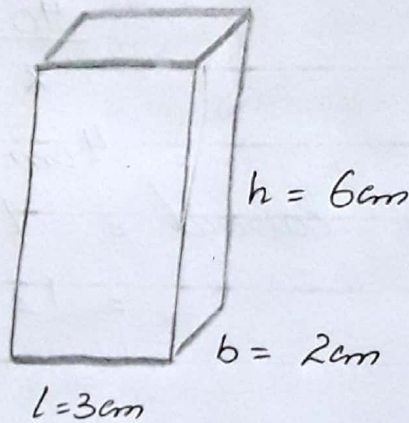
2. Find the volume with the help of the formula.

(a)



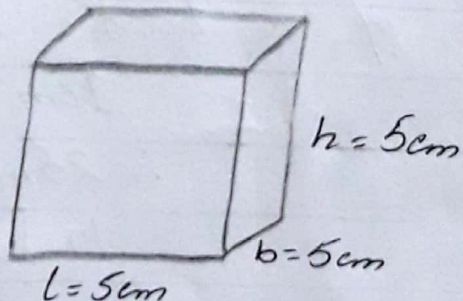
$$\begin{aligned}
 \text{Volume of a cuboid} &= l \times b \times h \\
 &= 3\text{cm} \times 4\text{cm} \times 5\text{cm} \\
 &= 60 \text{ cu.cm.}
 \end{aligned}$$

(b)



$$\begin{aligned}
 \text{Volume of a cuboid} &= l \times b \times h \\
 &= 3\text{cm} \times 2\text{cm} \times 6\text{cm} \\
 &= 36 \text{ cu.cm.}
 \end{aligned}$$

(c)



$$\begin{aligned}
 \text{Volume of a cube} &= l \times b \times h \\
 &= 5\text{cm} \times 5\text{cm} \times 5\text{cm} \\
 &= 125 \text{ cu.cm.}
 \end{aligned}$$

Exercise :-> 84Word Problems

(a) Question on book.

sol: length of a box = 12 cm.

Breadth of a box = 10 cm.

Height of a box = 40 mm.

$$1 \text{ cm} = 10 \text{ mm.}$$

$$\therefore 40 \text{ mm} = 40 \div 10$$

$$10 \overline{) 40} \quad 4$$

$$\underline{40}$$

x

$$= 4 \text{ cm.}$$

$$\therefore \text{Volume of a cuboid} = l \times b \times h$$

$$= 12 \times 10 \times 4$$

$$= 480 \text{ cu.cm.}$$

(b) Question on book.

sol: length of a book = 10 cm.

Breadth of a book = 15 cm

Height of a book = 25 mm.

$$1 \text{ cm} = 10 \text{ mm.}$$

$$\therefore 25 \text{ mm} = 25 \div 10$$

$$10 \overline{) 25} \quad 2.5$$

$$\underline{20}$$

$$50$$

$$\underline{50}$$

x

$$= 2.5 \text{ cm.}$$

$$\begin{aligned} \therefore \text{Volume of a cuboid} &= l \times b \times h \\ &= 10 \times 15 \times 2.5 \\ &= 375.0 \\ &= 375 \text{ cm.} \end{aligned}$$

(c) Question on book.

$$\text{sol: Length of a room} = 7 \text{ m.}$$

$$\text{Breadth of a room} = 8 \text{ m}$$

$$\text{Height of a room} = 5 \text{ m}$$

$$\begin{aligned} \therefore \text{Volume of a cuboid} &= l \times b \times h \\ &= 7 \times 8 \times 5 \\ &= 280 \text{ cu. m.} \end{aligned}$$

(d) Question on book.

$$\text{sol: Length of a Water container} = 1.1 \text{ m}$$

$$\text{Breadth of a Water container} = 1.1 \text{ m}$$

$$\text{Height of a Water container} = 1.1 \text{ m}$$

$$\begin{aligned} \therefore \text{Volume of a cube} &= l \times b \times h \\ &= 1.1 \times 1.1 \times 1.1 \\ &= 1.21 \times 1.1 \\ &= 1.331 \text{ cu. m.} \end{aligned}$$

Q.2. Complete the table:

Formulas:-

$$1) V = l \times b \times h.$$

$$2) \quad h = \frac{V}{L \times b}$$

$$3) \quad b = \frac{V}{L \times h}$$

$$4) \quad L = \frac{V}{b \times h}$$

	length	breadth	height	$V = L \times b \times h$
(a)	3cm	4cm	0.5cm	<u>6 cu. cm</u>

$$\begin{aligned} V &= L \times b \times h \\ &= 3 \times 4 \times 0.5 \\ &= 6.0 \end{aligned}$$

(b)	8m	2m	0.25m	<u>4 cu. m</u>
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$$\begin{aligned} V &= L \times b \times h \\ &= 8 \times 2 \times 0.25 \\ &= 4.00 \end{aligned}$$

(c)	3cm	<u>40cm</u>	2cm	240 cu. cm.
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$$b = \frac{V}{L \times h}$$

$$\begin{aligned} &= \frac{240}{3 \times 2} = \frac{240}{6} = 40 \\ &= 40 \text{ cm} \end{aligned}$$

(d) 2cm 13cm 10cm 260 cu.cm

$$l = \frac{V}{b \times h}$$

$$= \frac{260}{13 \times 10} = \frac{\cancel{260}^2}{\cancel{130}^1}$$

$$= 2\text{cm.}$$

(e) 4cm 3cm 5cm 60 cu.cm

$$h = \frac{V}{l \times b}$$

$$= \frac{60}{4 \times 3} = \frac{\cancel{60}^5}{\cancel{12}^1}$$

(f) 7mm 7mm. 7mm 343 cu.mm

$$b = \frac{V}{l \times h}$$

$$= \frac{343}{7 \times 7} = \frac{\cancel{343}^7}{\cancel{49}^1}$$

$$= 7\text{mm}$$

_____ Unit 3rd completed _____