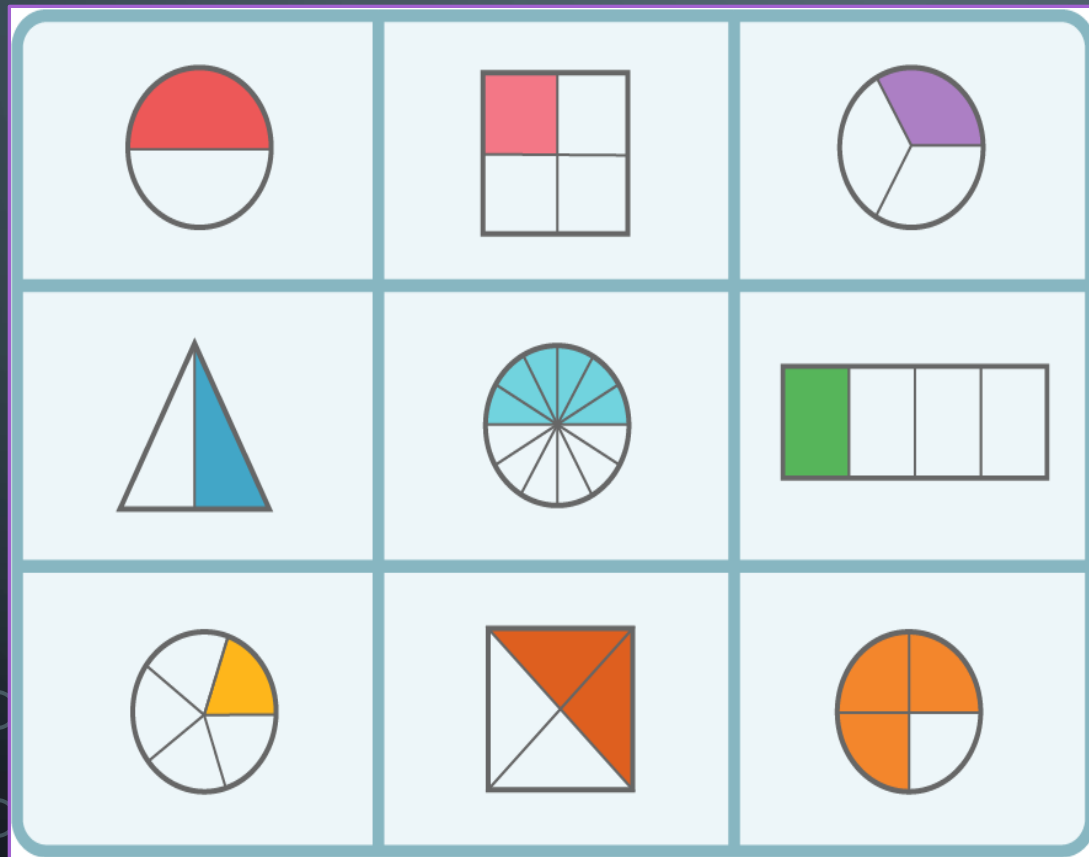


# TOPIC: FRACTIONS.



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C.W#7

- A fraction is a part of a whole. It is used to describe how many parts of a whole are being considered. A fraction has a numerator and a denominator.
- In the fraction  $\frac{2}{3}$ , 2 is the numerator and 3 is the denominator.
- Types of fraction:  
Proper fraction: A proper fraction is one in which the numerator is less than the denominator.  $\frac{3}{4}$  is a proper fraction.
- Improper fraction: An improper fraction is one in which the numerator is greater than the denominator.  $\frac{5}{3}$  is an improper fraction.

- **Like fractions:** Fractions with same denominator are like fractions.  $\frac{1}{9}$ ,  $\frac{2}{9}$  are like fractions.
- **Unlike fractions:** Fractions with different denominators are unlike fractions.  $\frac{2}{3}$ ,  $\frac{4}{5}$  are unlike fractions.
- **Mixed fractions:** A number which is made up of both whole number and a fraction is called a mixed fraction or mixed number.  $5\frac{2}{3}$  is a mixed fraction.
- **Equivalent Fractions:**

If the numerator or denominator of a fraction are multiplied or divided by the same whole number, we get a fraction which is equivalent to the given fraction.  $\frac{1}{2} = \frac{1 \times 2}{2 \times 2} = \frac{2}{4}$ ,  $\frac{6}{9} = \frac{6 \div 3}{9 \div 3} = \frac{2}{3}$

## TOPIC: FRACTIONS.

C.W#7( EX- 4.3)

$$\begin{aligned} 3) \frac{3}{5} \times \frac{2}{3} \\ = \frac{3 \times 2}{5 \times 3} \end{aligned}$$

$$= \frac{2}{5} \text{ Ans}$$

$$\begin{aligned} 4) \frac{2}{11} \times \frac{3}{4} \\ = \frac{2 \times 3}{11 \times 4} \end{aligned}$$

$$= \frac{3}{22} \text{ Ans}$$

$$\begin{aligned} 10) \frac{4}{5} \times \frac{10}{13} \\ = \frac{4 \times 10}{5 \times 13} \end{aligned}$$

$$= \frac{8}{13} \text{ Ans}$$

H.W#5,EX-4.3,PG#50(7,8,9) ( Learn all definitions)

# TOPIC: FRACTIONS.

## C.W#8( EX- 4.5)

4.  $5 \frac{1}{10}$  by  $\frac{3}{17}$

$$\cancel{5}1 \text{ } 3 \text{ } 3$$

$$= \frac{\quad}{10} \times \frac{\quad}{17}$$

$$10 \quad \cancel{17} 1$$

$$3 \times 3$$

$$= \frac{\quad}{1 \times 10}$$

$$1 \times 10$$

5)  $15$  by  $1 \frac{1}{5}$

$$\cancel{15} 3 \text{ } 6$$

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

$$1 \quad \cancel{5} 1$$

$$3 \times 6$$

$$= \frac{\quad}{1 \times 1}$$

$$1 \times 1$$

8)  $3 \frac{1}{5}$  by  $\frac{3}{8}$

$$\cancel{16} 2 \text{ } 3$$

$$= \frac{\quad}{5} \times \frac{\quad}{8}$$

$$5 \quad \cancel{8} 1$$

$$2 \times 3$$

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

$$1 \times 5$$

$$= \frac{9}{10} \text{ (Ans.)}$$

$$= \frac{18}{1}$$

$$= \frac{6}{5}$$

$$= 18 \text{ (Ans.)}$$

$$= 1 \frac{1}{5} \text{ (Ans.)}$$

\* Solve: Ex-4.3(9,10,12)

# TOPIC: FRACTIONS.

C.W#9( EX-4.5, 4.7)

DATE: 19.05.24

- **Conversion of fractions:**
- **Mixed to improper:**

**Formula :**  $\frac{\text{Whole number} \times \text{Denominator} + \text{Numerator}}{\text{Denominator remains same}}$

$$4\frac{2}{5} = \frac{\text{Whole number} \times \text{Denominator} + \text{Numerator}}{\text{Denominator remains same}}$$

$$= \frac{4 \times 5 + 2}{5}$$

$$= \frac{20+2}{5}$$

$$= \frac{22}{5} \text{ ( Ans )}$$

# TOPIC: FRACTIONS.

## C.W#9( EX-4.5, 4.7)

EX-4.5(PG#53)

B.1)  $3\frac{3}{4}$  of  $6\frac{2}{5}$

$$= \frac{15}{4} \times \frac{32}{5}$$

$$= \frac{3 \times 8}{1 \times 1}$$

$$= \frac{24}{1}$$

$$= 24(\text{Ans.})$$

4)  $2\frac{1}{15}$  of  $2\frac{1}{5}$

$$= \frac{31}{15} \times \frac{11}{5}$$

$$= \frac{31 \times 11}{15 \times 5}$$

$$= \frac{341}{75}$$

$$= 4\frac{41}{75}(\text{Ans.})$$



**EX. 4.7(PG#53)**

$$8) 4\frac{1}{2} \times 3\frac{3}{5} \times 1\frac{1}{3}$$

$$= \frac{9}{2} \times \frac{18}{5} \times \frac{4}{3}$$

$$= \frac{9 \times 18 \times 4}{2 \times 5 \times 3}$$

$$= \frac{3 \times 18 \times 2}{1 \times 5 \times 1}$$

$$= \frac{108}{5}$$

$$= 21\frac{3}{5} \text{ (Ans.)}$$

$$9) \frac{4}{7} \times 5\frac{2}{3} \times \frac{7}{17}$$

$$= \frac{4}{7} \times \frac{17}{3} \times \frac{7}{17}$$

$$= \frac{4 \times 17 \times 7}{7 \times 3 \times 17}$$

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

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

$$= 1\frac{1}{3} \text{ (Ans.)}$$

# TOPIC: FRACTIONS.

C.W#10( EX- 4.7,4.12)

EX-4.7,PG#51

$$11) 4\frac{1}{2} \times 5\frac{1}{4} \times \frac{8}{21}$$

$$= \frac{9}{2} \times \frac{21}{4} \times \frac{8}{21}$$

$$= \frac{9}{2} \times \frac{1}{1} \times \frac{2}{1}$$

$$= \frac{9}{1} \times \frac{1}{1} \times \frac{1}{1}$$

$$= \frac{9}{1}$$

$$= 9(\text{Ans.})$$

- EX-4.12, PG# 60
- \* **Division of a fractional number by a fractional number :**
- **Notes:** To divide a fractional number by another fractional number, we multiply the fractional number (dividend) by the multiplicative inverse of the other fractional number (divisor).

$$\begin{aligned}
 1) \quad & \frac{3}{8} \div \frac{3}{4} \\
 &= \frac{3}{8} \times \frac{4}{3} \\
 &= \frac{3 \times 4}{8 \times 3} \\
 &= \frac{1 \times 1}{2 \times 1} \\
 &= \frac{1}{2} \text{ (Ans.)}
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & \frac{15}{16} \div \frac{3}{4} \\
 &= \frac{15}{16} \times \frac{4}{3} \\
 &= \frac{15 \times 4}{16 \times 3} \\
 &= \frac{5 \times 1}{4 \times 1} \\
 &= \frac{5}{4} = 1\frac{1}{4} \text{ (Ans.)}
 \end{aligned}$$

# C.W#11 TOPIC: FRACTIONS.

- EX-4.7(PG#53)

Q. Simplify.

Extra:

$$12) 3\frac{3}{4} \times 1\frac{2}{5} \times 1\frac{1}{7}$$

$$= \frac{15}{4} \times \frac{7}{5} \times \frac{8}{7}$$

$$= \frac{3 \times 1 \times 2}{1 \times 1 \times 1}$$

$$= \frac{6}{1} = 6(\text{ans.})$$

$$3\frac{3}{4} \times 2\frac{2}{5} \times 1\frac{1}{3}$$

- EX-4.12(PG#60)

$$12. \ 2\frac{4}{5} \div \frac{7}{0}$$

$$= \frac{14}{5} \times \frac{0}{7}$$

$$= \frac{14}{5} \times 0$$

$$= 0(\text{Ans})$$

Extra.

$$4\frac{1}{4} \div 4\frac{1}{4}$$