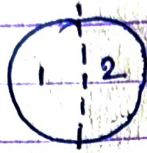


CH5: SHARING AND MEASURING

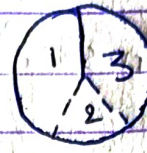
FRACTION:- A fraction means a part of a whole. It shows one or more parts out of many equal parts.



Whole Circle
[1]



Half of a
Circle
[$\frac{1}{2}$]



One third of a
circle
[$\frac{1}{3}$]



Total no. of parts = 8

No. of shaded part = 3

$\therefore$ Fraction of shaded part = $\frac{3}{8}$

PARTS OF A FRACTION:-

$\frac{3}{8}$
← Numerator
← Fraction Bar
← Denominator

TYPES OF FRACTIONS:-

1) LIKE FRACTIONS:- Fractions with the same denominators.

$$\text{Ex- } \frac{1}{18} \text{ , } \frac{12}{18}$$

same denominators

2) UNLIKE FRACTIONS:- Fractions with different denominators.

$$\text{Ex- } \frac{2}{7} \text{ , } \frac{9}{25}$$

different denominators

3) PROPER FRACTIONS:- A Fraction where numerator is less than the denominator.

Ex - $\frac{4}{7}$, $\frac{9}{11}$ [$N < D$]

4) IMPROPER FRACTION:- A Fraction where numerator is greater than denominator.

Ex - $\frac{7}{3}$, $\frac{51}{47}$ [$N > D$]

5) UNIT FRACTION:- A Fraction in which the numerator is 1.

Ex - $\frac{1}{2}$, $\frac{1}{14}$

6) MIXED FRACTION:- A Fraction which is made of a whole number and a proper fraction.

Ex - $2\frac{3}{4}$, $7\frac{1}{2}$ } ← Proper Fraction
↓
whole

Worksheet

1) Solve :-

a) $\frac{11}{57} + \frac{23}{57} - \frac{14}{57}$

b) $\frac{32}{71} + \frac{27}{71} - \frac{36}{71}$

c) $\frac{7}{30}$ of 6 = $\frac{7 \times \cancel{6}}{\cancel{30}} = \frac{7}{5}$

d) $\frac{2}{3}$ of 60

:-

2) Find whether the fractions are equivalent or not :-

a) $\frac{3}{15}$, $\frac{5}{25}$

Soln:-

$\frac{3}{15}$	$\rightarrow$	$\frac{5}{25}$	} Equivalent fraction.
$\frac{3}{15}$	$\rightarrow$	25	

$3 \times 25 = 75$
 $5 \times 15 = 75$

b) $\frac{2}{7}$, $\frac{4}{10}$

3. Find equivalent fractions of :-

NOTE:- To find an equivalent fraction, multiply or divide the numerator and the denominator of the fraction by the same numbers.

$$a) \frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10}$$

$$b) \frac{20}{30} = \frac{20 \div 5}{30 \div 5} = \frac{4}{6}$$

$$c) \frac{9}{18} =$$

1) Identify the types of fractions:-

a) $\frac{4}{11} =$

b) $\frac{17}{5} =$

c) $2\frac{3}{5} =$

d) $\frac{1}{36} =$

2) Convert improper to mixed fraction:-

a) $\frac{28}{8}$

Soln

$$\begin{array}{r} 3 \leftarrow \text{Whole number} \\ 8 \overline{) 28} \\ \underline{-24} \\ 4 \leftarrow \text{Numerator} \end{array}$$

Denominator

Ans) $3\frac{4}{8}$

b) $\frac{57}{9}$

3) Convert mixed fraction to improper fraction:-

a) $11\frac{5}{7} = \frac{(11 \times 7) + 5}{7} = \frac{77 + 5}{7} = \frac{82}{7}$

b) $9\frac{3}{5}$