

HALVES AND QUARTERS

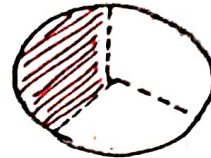
FRACTION: A fraction means a part of a whole. It shows one or more parts out of many equal parts.



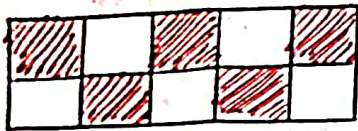
Whole circle



Half ($\frac{1}{2}$) of circle



One third ($\frac{1}{3}$) of circle.



Total no. of parts = 10
No. of coloured parts = 5

$\therefore$ Fraction of shaded part
= $\frac{5}{10}$ $\rightarrow$ Numerator
 $\rightarrow$ Denominator

TYPES OF FRACTIONS :-

(1) Like Fractions : Fractions with the same denominators

Eg: $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{7}{8}$

Same denominator.

(2) Unlike Fractions : Fractions with different denominators.

Eg: $\frac{2}{7}, \frac{9}{25}, \frac{17}{33}$

All different denominators

(3) Proper Fraction: A fraction where numerator is less than the denominator
Ex: $\frac{3}{7}$ $\rightarrow$ Numerator (N)
 $\quad \quad \quad \rightarrow$ Denominator (D)

$3 < 7$ that is, $N < D$

(4) Improper Fraction: A fraction where numerator is greater than or equal to the denominator.

Ex: - i) $\frac{17}{9}$ ii) $\frac{15}{15}$

i) $17 > 9$ ($N > D$)
ii) $15 = 15$ ($N = D$) } Improper Fraction.

(5) Unit Fraction: A fraction in which the numerator is 1.

Ex: $\frac{1}{1}, \frac{1}{7}, \frac{1}{9}$

(6) Equivalent Fraction: Equivalent fractions are the fractions that have different numerators and denominators but are equal to the same value.

Ex: $\frac{2}{4}$ and $\frac{3}{6}$ are equivalent

$$\frac{2}{4} = \frac{2 \times 3}{4 \times 3} = \frac{6}{12} \quad \frac{3}{6} = \frac{3 \times 2}{6 \times 2} = \frac{6}{12}$$
$$\frac{2}{4} \leftrightarrow \frac{3}{6}$$

$$2 \times 6 = 12$$

$$3 \times 4 = 12$$

(7) Mixed Fractions: A fraction which is made of a whole number and a proper fraction.

Ex: $2 \frac{3}{4}$

$\downarrow$ $\downarrow$
whole number proper fraction
or
Integral part