

# Maths Assignment 12, Std VI

## Types of Fractions

1. Proper Fraction: A fraction whose numerator is greater than zero but less than its denominator is called a proper fraction. For example  $\frac{5}{9}$ ,  $\frac{2}{17}$ ,  $\frac{51}{248}$  are all proper fractions.

2. Improper Fraction: A fraction whose numerator is equal to or greater than its denominator is called an improper fraction.

For example:  $\frac{14}{3}$ ,  $\frac{9}{2}$ ,  $\frac{745}{239}$  are all improper fractions.

Note that every natural number can be written as a fraction.

For example:  $5 = \frac{5}{1}$ ,  $42 = \frac{42}{1}$  etc. So every natural number is an improper fraction.

3. Mixed Fraction (or mixed number):

A number which consists of two parts: (i) a natural number (ii) a proper fraction is called a mixed fraction (or mixed number)

For example,  $2\frac{3}{11}$  is a mixed fraction as it consists of two parts (i) a natural number 2 and (ii) a proper fraction  $\frac{3}{11}$ .

In fact  $2\frac{3}{11}$  means  $2 + \frac{3}{11}$ .

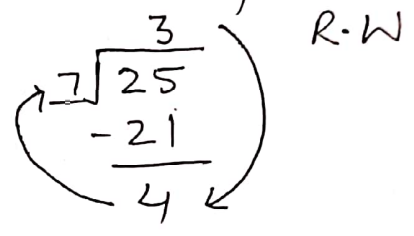
Converting an improper fraction into mixed fraction

Rule: Divide numerator by denominator to get the quotient and the remainder. Then the quotient is the natural number part and the remainder over the denominator is the proper fractional part of the required mixed fraction.

Thus, mixed fraction =  $\text{quotient} \frac{\text{remainder}}{\text{denominator}}$

Example: Express  $\frac{25}{7}$  as a mixed fraction

$\frac{25}{7} = 3 \frac{4}{7}$  Ans



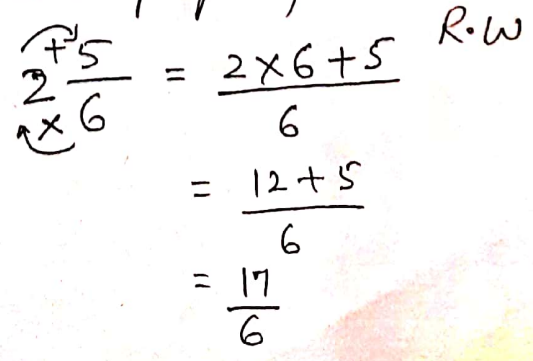
Converting a mixed fraction into an improper fraction

Rule: Multiply the natural number part by denominator and to this product add the numerator. This number over the denominator is the required improper fraction.

Thus, improper fraction =  $\frac{(\text{natural no.} \times \text{denominator}) + \text{numerator}}{\text{denominator}}$

Example: Write  $2 \frac{5}{6}$  as improper fraction

$2 \frac{5}{6} = \frac{17}{6}$  Ans



# Maths Worksheet 12, Std VI

Q-1 State which of the following fractions are proper, improper or mixed

i)  $\frac{15}{26}$

(ii)  $\frac{17}{12}$

iii)  $5\frac{2}{3}$

(iv)  $\frac{222}{333}$

(v)  $\frac{531}{247}$

vi)  $11\frac{5}{7}$

Q-2 Convert the following improper fractions into mixed numbers.

i)  $\frac{17}{3}$

(ii)  $\frac{119}{15}$

iii)  $\frac{961}{13}$

(iv)  $\frac{49}{4}$

Q-3 Convert the following mixed fractions into improper fractions.

i)  $7\frac{2}{11}$

(ii)  $3\frac{5}{48}$

iii)  $7\frac{2}{3}$

(iv)  $5\frac{11}{17}$