

**Fractions**

**Expression of Mixed as Improper Fraction and Improper as Mixed Fraction**

It is possible to convert the improper fraction into a mixed fraction and vice versa.

Improper to Mixed Fraction

* Firstly, a division is carried out with denominator as the divisor and the numerator as the dividend.
* The quotient obtained through division becomes the whole part.
* The remainder obtained through division becomes the numerator of the fractional part.
* The divisor or the denominator of the improper fraction remains the denominator of the fractional part also.
* Therefore a mixed fraction is written as



Mixed to Improper Fraction

Following is used to convert mixed to improper fraction:



* The whole is multiplied by the denominator and the numerator is added. The number r obtained is the numerator of the improper fraction.
* The denominator of the mixed fraction remains as the denominator of the improper fraction.

Problem: Express the following as mixed fractions. 20/3

Solution:



Problem: Express the following mixed fractions as improper fractions: 8 4/9

Solution:

In this case, 8 is the whole, 4 is the numerator and 9 is the denominator.

Thus putting these values in the following we get :



= (8\*9) + 4

          9

=31/9

Thus we get an improper fraction with 31 as the numerator and 9 as the denominator. It can also be seen that the value of this fraction is greater than 1.