CLASS : 7   TOPIC :   FRACTIONS (Multiplication and Division)

- **MULTIPLICATION OF A FRACTION BY A WHOLE NUMBER: *****

  To multiply a whole number by a fraction or a fraction by a whole number multiply the whole number by the numerator of the fraction and write the denominator of the fraction as it is in the denominator.

- **MULTIPLICATION OF A FRACTION BY A FRACTION: *****

  To multiply a fraction by a fraction multiply the whole number by the numerator of the first fraction by the numerator of the second fraction and write the product in the numerator. Multiply the denominator of the first fraction by the denominator of the second fraction and write the second fraction in the denominator.

- **MULTIPLICATION OF A MIXED NUMBER BY A FRACTION, OR BY MIXED NUMBER OF A WHOLE NUMBER:**

  To multiply a mixed number by a mixed number , first convert the mixed numbers into improper fractions and then proceed as it is given in *******

- **RECIPROCAL OF A FRACTION:**

  If the product of two fractions is equal to 1 , then each fraction is the reciprocal of the other. Example: (i) The reciprocal of 3 is $\frac{1}{3}$, because $3 \times \frac{1}{3} = 1$.

  (ii) The reciprocal of $\frac{17}{8}$ is $\frac{8}{17}$, because their product is 1.

- **DIVISION OF A FRACTION BY A FRACTION:**

  (i)   To divide a fraction by a fraction multiply the dividend by the reciprocal of the divisor.

  (ii)   We can divide a fraction by a fraction only when they are in the fractional form. A whole number should by consider as fraction with one in its denominator. A mixed number should be converted as an improper fraction.

  (iii)   To obtain the quotient of two fractions , multiply the numerator of the first fraction with the denominator of the second fraction and write the product in the numerator of the quotient fraction.   Then multiply the denominator of the first fraction and the numerator of the second fraction and write the product in the denominator of the quotient fraction.

  (iv)   For multiplication follow the steps for multiplication of fractions given above.

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