### **Fractions and Decimals**

### **Multiplication and Division on Fraction**



#### **Divisions of Fractions**

- To obtain the reciprocal of a fraction, interchange the numerator with denominator.
- To divide a whole number by a fraction, take the reciprocal of the fraction and then multiply it with the whole number.
- To divide a fraction by a whole number, multiply the fraction with the reciprocal of the whole number.
- To divide a fraction by a fraction, multiply the first fraction with the reciprocal of the second fraction.

# **Multiplication and Division on Decimals**

### **Multiplication of Decimals**

- To multiply a whole number by a decimal number, follow these steps: Ignore the decimal and multiply the two numbers.
- Count the number of digits to the right of decimal point in the original decimal number. Insert the decimal, from right to left, in the answer by the same count.
- To multiply a decimal number by a decimal number, follow these steps: Ignore the decimals and multiply the two numbers.
- Count the number of digits to the right of decimal point in both the decimal numbers.
- Add up the number of digits counted and insert the decimal, from right to left, in the answer by the same count.

## To multiply a decimal number with 10, 100 or 1000, follow these steps:

• While multiplying a decimal number with 10, retain the original number and shift the decimal to the right by one place.

- While multiplying a decimal number with 100, retain the original number and shift the decimal to the right by two places.
- While multiplying a decimal number with 1000, retain the original number and shift the decimal to the right by three places.

### **Division of Decimals**

- To divide a decimal number by a whole number, follow these steps: Convert the decimal number into a fraction.
- Take the reciprocal of the divisor. Multiply the reciprocal with the fraction.
- To divide a decimal number by another decimal number, follow these steps: Convert both the decimal numbers into fractions.
- Take the reciprocal of the divisor.
- Multiply the reciprocal with the fraction.