CLASS NOTES

Division of Decimal Numbers

Division of decimal number by 10, 100 and 1000

When dividing a number by 10, 100 or 1000, the digits of the number and the quotient are same but the decimal point in the quotient shifts to the left by as many places as there are zeros over 1.

> If a decimal is divided by a power of 10, then the decimal point shifts to the left by the number of zeros present in the power of 10

Example: 312.3 ÷ 10 = 31.23

312.3 ÷ 100 = 3.123

312.3 ÷ 1000 = 0.3123

Division of decimal numbers by a whole number

o Convert the decimal number into fraction

o Divide the fraction by the whole number.

Example: $4.25 \div 5 = \frac{425}{100} \div 5$

$$= \frac{425}{100} \times \frac{1}{5}$$

$$= \frac{85}{100}$$

$$= 0.85$$

Division of a decimal number by another decimal number

o Convert both the decimal numbers into fractions

o   Divide the fraction by the fraction.

Example: $7.75 \div 0.25 = \dfrac{775}{100} \div \dfrac{25}{100}$

$$= \dfrac{775}{100} \times \dfrac{100}{25}$$

$$= \dfrac{775}{25}$$

$$= 31$$

OR

$$7.75 \div 0.25 = \dfrac{7.75}{0.25}$$

$$= \dfrac{7.75 \times 100}{0.25 \times 100}$$

$$= \dfrac{775}{25}$$

$$= 31$$