Chapter – 02

Linear Equations in One Variable

- A statement of equality of two algebraic expressions involving one or more variables. Example: x + 2 = 3
- **Linear Equation in One variable**: The expressions which form the equation that contain single variable and the highest power of the variable in the equation is one.
- An algebraic equation is an equality involving variables. It says that the value of the expression on one side of the equality sign is equal to the value of the expression on the other side.
- The equations we study in Classes VI, VII and VIII are linear equations in one variable. In such equations, the expressions which form the equation contain only one variable. Further, the equations are linear, i.e., the highest power of the variable appearing in the equation is 1.
- A linear equation may have for its solution any rational number.
- An equation may have linear expressions on both sides. Equations that we studied in Classes VI and VII had just a number on one side of the equation.
- Just as numbers, variables can, also, be transposed from one side of the equation to the other.
- Occasionally, the expressions forming equations have to be simplified before we can solve them by usual methods. Some equations may not even be linear to begin with, but they can be brought to a linear form by multiplying both sides of the equation by a suitable expression.
- The utility of linear equations is in their diverse applications; different problems on numbers, ages, perimeters, combination of currency notes, and so on can be solved using linear equations.