ABSTRACT

In mathematics, graph theory is the study of graphs which are mathematical structures used to model pairwise relations between objects. A graph consists of vertices and edges. A distinction is made between undirected graphs where edges link two vertices symmetrically, and directed graphs, where edges link two vertices asymmetrically.

In general a graph is represented by $G = (V, E)$ V the set of all vertices and E the set of edges. In any graph V is non empty. E is may empty. V is called nodes or points.

E is also called links or lines. Any edge is connected to itself or the beginning and ending vertices are same then the edge is called loop.

The number of edges incidence of a particular vertex is called degree of that particular vertex.

A simple graph is called regular if each vertex having degree same.