

Part V (Section 7.3): Trees and Spanning Trees

The properties of a tree are:

1. There are no circuits in a tree (no closed loops)
2. Each node is connected.
3. There is an edge to each node.
4. There are always $n-1$ edges for n nodes in a tree.

Examples:

Part VI: Minimum Spanning Trees

A minimum spanning tree is a tree that is the most efficient tree that can be formed to connect all nodes.

Kruskal's Algorithm to find a minimum spanning tree

1. Select the shortest edge in a graph.
2. Keep selecting the shortest edge until all nodes are connected (with no circuits).

Examples