Minimum Spanning Trees Kruskal’s algorithm

Basic algorithm

Process the edges in order of their weight values, taking for the MST (coloring black) each edge that does not form a cycle with edges previously added, stopping after adding V-1 edges have been taken.

Theorem: Kruskal’s algorithm uses space proportional to E and time proportional to E log E (in the worst case) to compute the MST of an edgeweighted connected graph with E edges and V vertices.