グラフ理論

枝に重みをもつ連結無向グラフ G を考える．以下の問いに答えよ．

(i) G の最小全域木を求めるクラスカル法を述べよ．

(ii) クラスカル法が正しく最小全域木を出力することの証明を与えよ．

(iii) G の枝の重みがすべて異なるとき，G の最小全域木は唯一であることを証明せよ．

An English Translation:

Graph Theory

2

Let G be a connected undirected graph with edges weighted by reals. Answer the following questions.

(i) Describe Kruskal's method for finding a minimum spanning tree of G.

(ii) Prove that Kruskal's method correctly constructs a minimum spanning tree of G.

(iii) Prove that a minimum spanning tree of G is unique when all edge weights are distinct.