

CS340

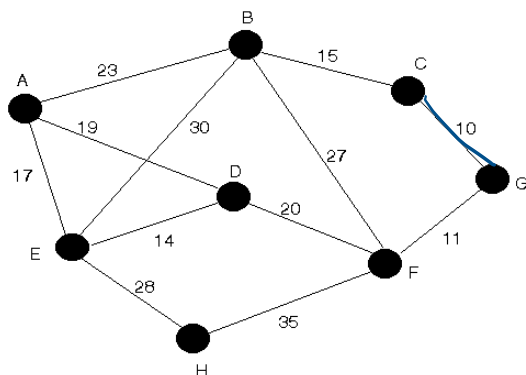
Homework 4: Minimum Spanning Tree.

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It is ok to do this by hand and submit a PDF image of the work.

Run Kruskal's algorithm on the graph below. For full points, show the edge added, the updating of the disjoint set data structure, and mark the status of the MST at each step. To make it easier, each step is shown in a separate section below.

Step 1



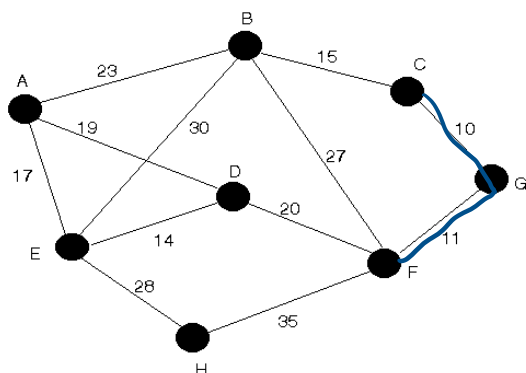
Edge added:

Status of disjoint set data structure:

A B
C
D
E
F
G
H

A B
C
D
E
F
G
H

Step 2



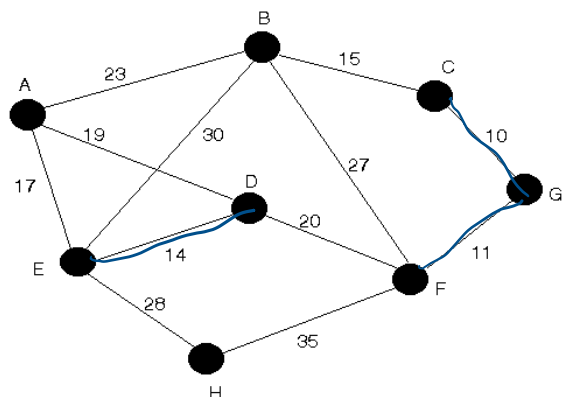
Edge added:

Status of disjoint set data structure:

A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

Step 3



Edge added:

Status of disjoint set data structure:

A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

