

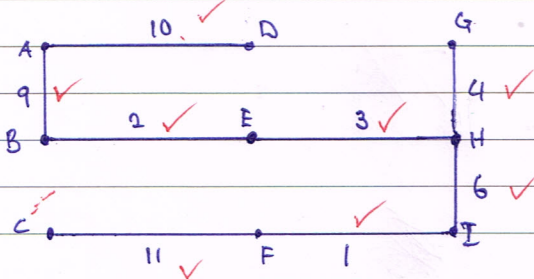
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Self-Exercise 10

1. Find the minimum spanning tree using Kruskal's algorithm.

Edge	FI	BE	EH	GH	HI	FH	BF	AB	AD	CF	DE	AE	EF	BC	EG	DG
Weight	1	2	3	4	6	7	8	9	10	11	13	14	15	16	18	20
Add	Yes	Yes	Yes	Yes	Yes	NO	NO	Yes	Yes	Yes	NO	NO	NO	NO	NO	NO

Total Weight = 46 ✓

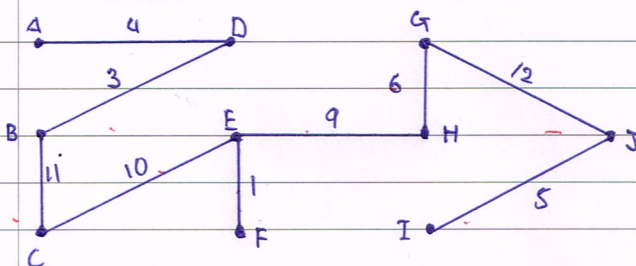
9 vertices
8 edges to add.

2. Find the minimum spanning tree using Prim's Algorithm.

Edge	DH	DG	FI	BE	CF	HS	DE	GJ	FH	BC	CE	AB	EH	GH	JI	AD	BD
Weight	20	19	18	17	16	15	13	12	11	11	10	10	9	6	5	4	3
Delete	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NO	Yes	NO	NO	Yes	NO	NO	NO	NO	NO

EF
1
NO

∴ Total Weight = 61 ✓

10 vertices
9 to remain.
edges

Good try!

11.1.18