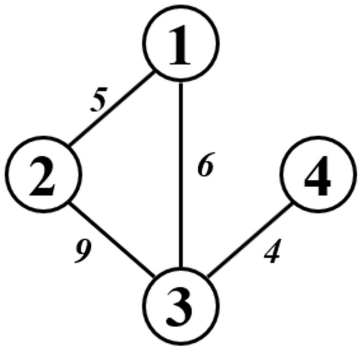
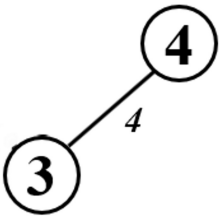
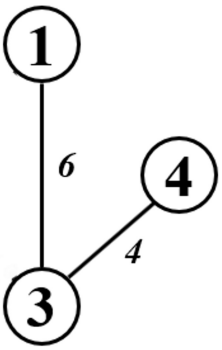
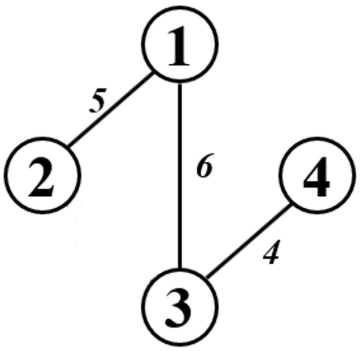
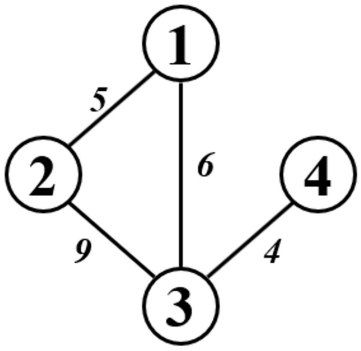
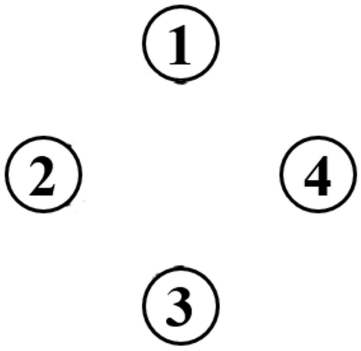
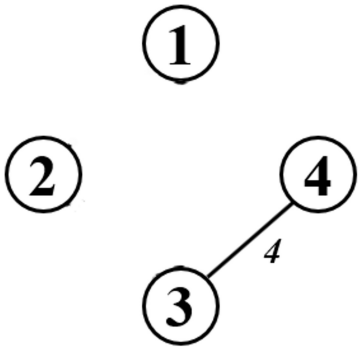
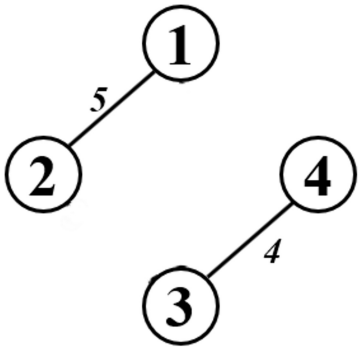
Prim & Kruskal

17 April 2021 3:54 PM

I. Prim

GRAPH	STEPS	MINIMUM SPANNING TREE
	Choose an arbitrary vertex: 3 Put 3's edges in priority queue. Queue: - (3, 4) - 4 - (3, 1) - 6 - (3, 2) - 9	
	Get (3, 4) - 4 -> safe edge Put 4's edges in priority queue (no more edges). Queue: - (3, 1) - 6 - (3, 2) - 9	
	Get (3, 1) - 6 -> safe edge Put 1's edges in priority queue. Queue: - (1, 2) - 5 - (3, 2) - 9	
	Get (1, 2) - 5 -> safe edge Put 2's edges in priority queue (no more edges). Queue: - (3, 2) - 9 DONE	

II. Kruskal

GRAPH	STEPS	MINIMUM SPANNING TREE
	Initial Step. Ordered Edges: - (3, 4) - 4 - (1, 2) - 5 - (1, 3) - 6 - (2, 3) - 9	
	Get (3, 4) - 4 -> safe edge Ordered Edges: - (1, 2) - 5 - (1, 3) - 6 - (2, 3) - 9	
	Get (1, 2) - 5 -> safe edge Ordered Edges: - (1, 3) - 6 - (2, 3) - 9	
	Get (1, 3) - 6 -> safe edge Ordered Edges: - (2, 3) - 9 DONE