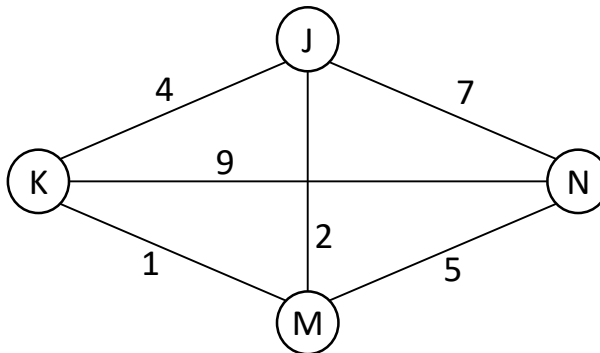
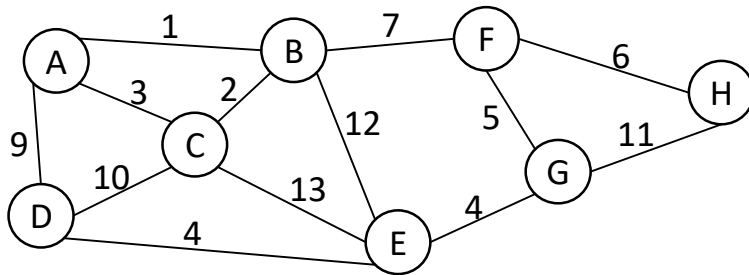
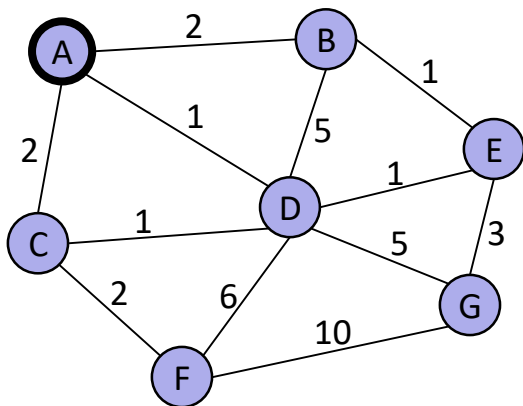


Student Activity: Find the MSTs

- ❖ Find the MST for both of these graphs:



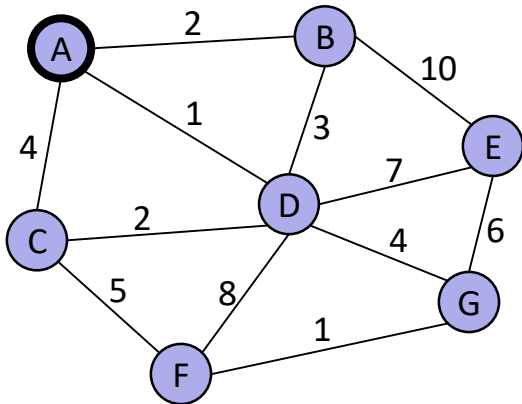
Prim's Algorithm: Example



Order Added to Known Set:

Vertex	Known?	Distance	Previous
A		∞	
B		∞	
C		∞	
D		∞	
E		∞	
F		∞	
G		∞	

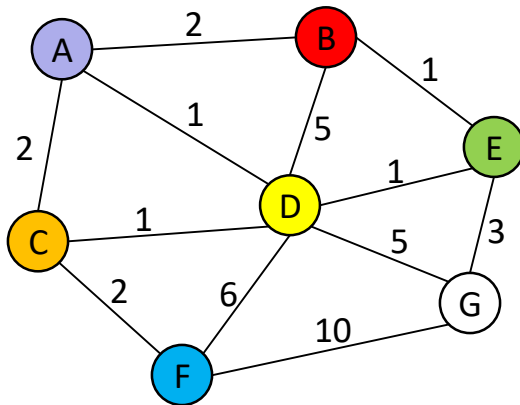
Prim's Algorithm: Student Activity



Order Added to Known Set:

Vertex	Known?	Distance	Previous
A		∞	
B		∞	
C		∞	
D		∞	
E		∞	
F		∞	
G		∞	

Kruskal's Algorithm: Example



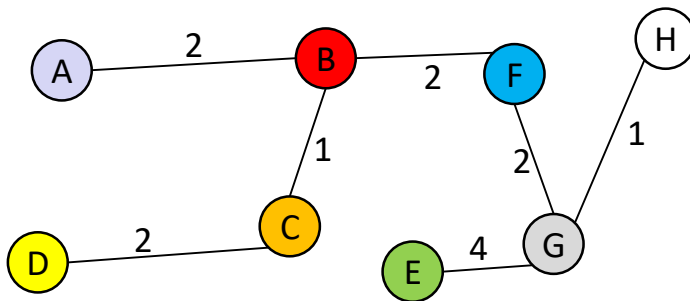
MST:

Num Forests: 7

Weight	Edges
1	(A,D), (C,D), (B,E), (D,E)
2	(A,B), (C,F), (A,C)
3	(E,G)
5	(D,G), (B,D)
6	(D,F)
10	(F,G)

Kruskal's Algorithm: Student Activity

- ❖ Use Kruskal's algorithm to find an MST in this graph



Weight	Edges
1	(B, C), (G, H)
2	(A,B), (B, F), (C,D), (F,G)
4	(E,G)

MST: