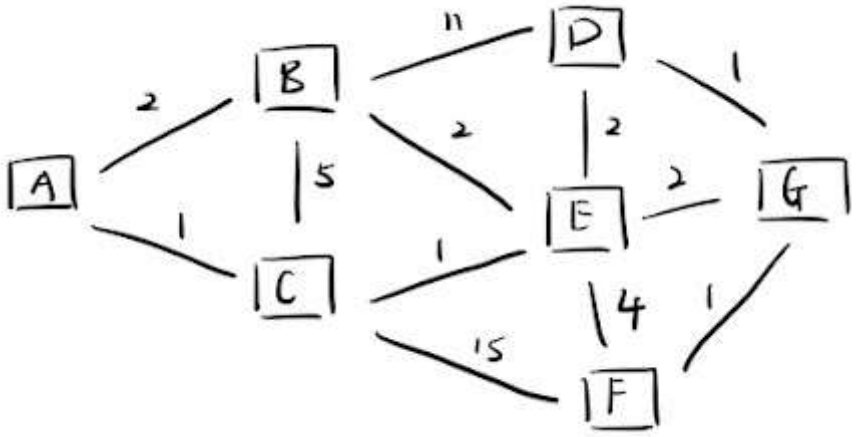
Which of the following are true statements about Prim's and Dijkstra's Algorithm? * 2 points

- [ ] Prim's algorithm finds the MST and Dijkstra's Algorithm finds the SPT.
- [ ] Both Prim's and Dijkstra's Algorithm use a priority queue for the fringe, and the priority for each vertex is the weight of the edge that leads to that vertex.
- [ ] Dijkstra's algorithm visits vertices in order of distance from the source.
- [ ] Prim's algorithm visits vertices in order of distance from the MST under construction.

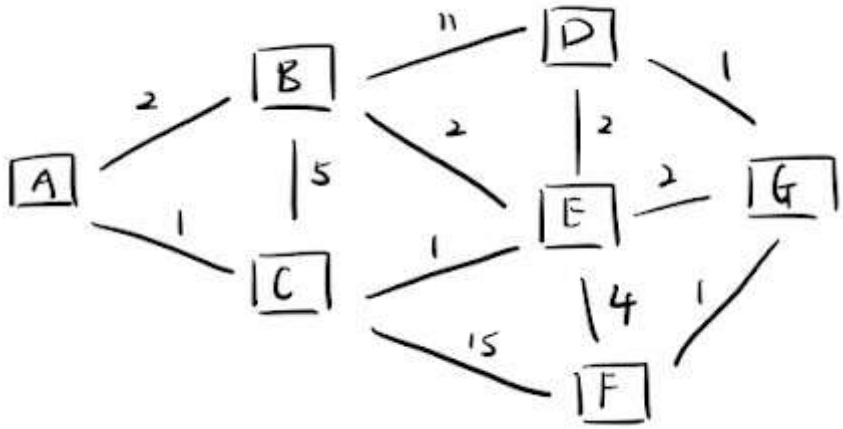
What is the order of the edges added into the MST according to **Prim's Algorithm** with **"A" being the start vertex**? Assuming we break ties alphabetically (ex: **AB will come before AC**). * 2 points



- ( ) AC, CE, DG, FG, AB, BE
- ( ) AC, CE, DG, FG, AB, DE
- ( ) AC, CE, AB, DE, DG, FG
- ( ) AB, AC, CE, DE, DG, FG

What is the order of the edges added into the MST according to the **Kruskal's Algorithm**? Assuming for each edge notation, we always write the alphabetically earlier letter first, and we break ties alphabetically (ex: **AB will come before AC**).

* 3 points



- AC, CE, DG, FG, AB, BE
- AC, CE, DG, FG, AB, DE
- AC, CE, AB, DE, DG, FG
- AB, AC, CE, DE, DG, FG

A copy of your responses will be emailed to yiyunchen@berkeley.edu.

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