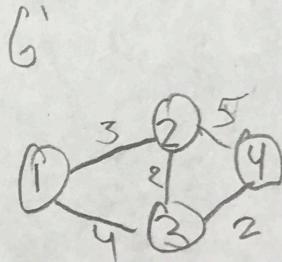
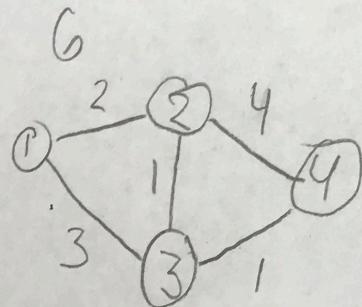


Names: Gatlin Walker

Minimum Spanning Tree

1. Consider an undirected graph $G = (V, E)$ where every edge e has a given cost c_e . Assume that all edge costs are positive and distinct. Let T be a minimum spanning tree of G and P be a shortest path from the vertex s to the vertex t . Now suppose that the cost of every edge e of G is increased by 1 (for each edge: $c'_e = c_e + 1$). Call this new graph G' . Which of the following is true about G' ?
- a. T must be a minimum spanning tree;
 - b. T may **not** be a minimum spanning tree;
 - c. T must be a minimum spanning tree;
 - d. T may **not** be a minimum spanning tree;
- but P may **not** be a shortest $s-t$ path.
and P may **not** be a shortest $s-t$ path.
and P is always a shortest $s-t$ path.
but P is always a shortest $s-t$ path.

Your score from the AutoGradr: 100%



T

