Exercise 4.3.5: Show that the greedy algorithm is valid even when edge weights are not distinct.

Solution:

Using cut property, having 2 edges of equal weight doesn't negate validity as long as the 2 edges are between 2 different subsets of nodes of the graph. This is so they are isolated in specific semi-graphs without interference and connect together by crossing edge.

we pick an edge and find closest edge, color it black, and do this again for each edge until V-1 times since E=V-1. This basically then simulates Prim's Algorithm.