

# Design and Analysis of Algorithms

## 5.2 Greedy Algorithms

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## 5.2.2

Suppose we find a minimum spanning tree  $T$  in a graph.

Suppose we then add 1 to the weight of every edge in the graph.

Is  $T$  still a minimum spanning tree? Why or why not?

Yes  $T$  is still a minimum spanning tree because adding 1 to the weight will not

1. create cycles
2. change the ordering of the edge weights