1. A set $S \subseteq V$ is a dominating set in a graph G if each vertex $v \in V$ is either in S or has a neighbor in S. We consider the case that G is a tree.
   (a) (4 points) Give a recursive formulation to determine the size of the minimum dominating set.
   (b) (2 points) Give an analysis of a tight upper bound on the runtime of a dynamic programming implementation of this function.

End of assignment