Assignment 1 (Comp 352)
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a.) Multiple is exponential because everytime it gets called it calls the recursive method and executes it multiple times, where if we get huge numbers, the number of executed processes grows exponentially. Linear solves the problem of multiple because it does not create new processes, therefore there is only one method being used. This solves the bottleneck as there are less processes and more resources available for the process to use so the computer does not slow down due to the immense number of methods being processed.

b.) Yes, the linear recursion can be turned to a tail recursion. The multiple recursion cannot be turned to a tail recursion, because it is impossible to classify multiple recursion as tail or head recursion. The second linear recursion is tail recursion, because the last call to the method is the recursion.