Name _____ Discrete I, Quiz 28

1) If "Line 4" is the line of interest and everything else is trivial, what is the asymptotic growth rate of this algorithm?

```
for i from 0 to n1
   "Line 2"
   for j from 0 to n2
      "Line 4"
      for k from 0 to n3
         "Line 6"
```

2) Assuming all arithmetic can be done in hardware, find an asymptotic upper bound on the runtime of this algorithm. Give a one-sentence explanation for your upper bound.

```
myFunc(n):
      if n == 0 return 1
      for i from 0 to n-1
            "Line 4"
      return myFunc(n-1)+ myFunc(n-2)
```