CSC 212 Tutorial #4
Performance Analysis
01-05/03/2015

Important: This tutorial has an online part, which you should complete on LMS.

Question 1: Find the total number of primitive operations and the Big Oh notation of the following methods:

a)

	Statements	S/E	Freq.	Total
1	void findProduct(int n)	0	0	0
2	{	0	0	0
3	int product = 0;	1	1	1
4	for (int i = 0; i<10; i=i+2)	1	6	6
5	{	0	0	0
6	product = product * i;	1	5	5
7	}	0	0	0
8	System.out.println(product);	1	1	1
9	}	0	0	0
	Total Operations	13		
	Big Oh	O(1)		

b)

	Statements	S/E	Freq.	Total
1	void findNestedProduct(int n)	0	0	0
2	{	0	0	0
3	int product = 0;	1	1	1
4	for (int i = 0; i < n; i = i + 2)	1	(n/2) + 1	(n/2) + 1
5	{	0	0	0
6	for (int j = 0; j < 6; j ++)	1	7 (n/2)	7 (n/2)
7	product = product * i * j;	1	6 (n/2)	6 (n/2)
8	}	0	0	0
9	System.out.println(product);	1	1	1
10	}	0	0	0
	Total Operations	14 (n/2) + 3		
	Big Oh	O(n)		