

SAN FRANCISCO STATE UNIVERSITY
Computer Science Department

CSC510 – Analysis of Algorithms
Extracredit Algorithm Challenge

Instructor: Jose Ortiz

Full Name: _____

Student ID: _____

Assignment Instructions. Must read!

Note: Failure to follow the following instructions in detail will impact your grade negatively.

1. This algorithm challenge is worth 5% extracredit that will be added to the student's final grade at the end of the semester.
2. Partial credit in this algorithm challenge will be given **only if the answers provided by the student are close to the right solution**. Poor or insufficient work won't be considered for credit

Your Work Here

1. Given the following pseudocode, compute its time complexity by (1) creating the recurrent equation that represents it, (2) solve the recurrent equation using the substitution method, and (3) check your results with the Master Theorem.

```
func doSomething(n) {  
    if n <= 0:  
        return;  
    for (i = 0; i<n; i++) {  
        for (j=0; j<n; j++) {  
            for (k=0 k<n; k++) {  
                print("something");  
            }  
        }  
    }  
    doSomething(n/3);  
    doSomething(n/3);  
    doSomething(2n/3);  
}
```