

CS201 Name: \_\_\_\_\_

For each classification, which would execute faster. Circle the correct answer.

- 1)  $O(n)$     $O(n^2)$                       2)  $O(n^3)$     $O(1)$    3)  $O(\log_2 N)$     $O(n^2)$

According to the book, give the name of each of the following classifications:

- 1)  $O(n)$    \_\_\_\_\_  
2)  $O(1)$    \_\_\_\_\_  
3)  $O(n^3)$    \_\_\_\_\_  
4)  $O(2^n)$    \_\_\_\_\_

Classify each of the following blocks of code.

- 1) For ( i=0; i<N; ++i)                      \_\_\_\_\_  
    {  
        .....  
    }  
2) For ( i=0; i<N; ++i)                      \_\_\_\_\_  
    { for ( j=0; j<N; ++j)  
        {  
            .....  
        }  
    }  
3) For ( i=0; i<N; ++i)                      \_\_\_\_\_  
    { for ( j=i; j<N; ++j)  
        {  
            .....  
        }  
    }