

## Quiz 8

```
/**  
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 * @date 2020-10-18  
 */
```

### Problem 1

```
void prob1(int n) {  
    for (int i = 0; i < n; i++) {  
        System.out.println(i);  
    }  
}
```

The time complexity of this method is  $O(n)$ .

### Problem 2

```
void prob2(int n) {  
    for (int i = 0; i < n; i++) {  
        for (int j = 0; j < n; j++) {  
            System.out.println(i);  
        }  
    }  
}
```

The time complexity of this method is  $O(n^2)$ .

### Problem 3

```
void prob3(int n) {  
    for (int i = 0; i < n; i++) {  
        for (int j = 0; j < i; j++) {  
            System.out.println(i);  
        }  
    }  
}
```

The time complexity of this method is  $O(n^2)$ .

### Problem 4

```
void prob4(int n) {  
    for (int i = 0; i < n; i++) {  
        bar(n); //assume bar has complexity O(n2)  
    }  
}
```

The time complexity of this method is  $O(n^3)$ .

### Problem 5

```
public void foo(int[] data) {  
    for (int i = 0; i < data.length; i++) {  
        for (int j = 0; j < 3; j++) {  
            System.out.println(i+j);  
        }  
    }  
}
```

The time complexity of this method is  $O(n)$ .

In [ ]: