Recursion Quiz

What does the following code print when \( i = 0 \)?

```java
public static void rec1 (int i) {
    if (i==0)
        System.out.print(i + " ");
    for (int j=0; j<2; j++) {
        rec1(i-1);
        rec1(i-1);
    }
}
```

**Question 1**
\( \text{cs165: Quiz - Recursion} \)

A. 1 0  
B. 0 0  
C. 0 1  
D. 0 0 0 0  
E. None of the above

Stack overflow

Which of the following match the definition of a list of names below?

In this recursive definition with two cases:
1. a list of names is  
2. a name (no spaces)  
   or  
   a name followed by a semicolon and a space followed by a list of names

```java
public static void recs (int i) {
    if (i==0)
        System.out.print(i + " ");
    for (int j=0; j<2; j++) {
        recs(i-1);  
        recs(i-1);  
    }
    
    A. Bob Alice  
    B. Bob; Alice;  
    C. Alice; Mary; Ted  
    D. Owen;  
    E. None of the above
```

**Question 2**
\( \text{cs165: Quiz - Recursion} \)

A. Bob Alice  
B. Bob; Alice;  
C. Alice; Mary; Ted  
D. Owen;  
E. None of the above
Which of the following match the definition of a list of names below?

In this recursive definition with two cases:
1: a name (no spaces)
2: a name followed by a semicolon and a space followed by a list of names

A. Bob Alice
B. Bob; Alice;
C. Alice; Mary; Ted
D. Owen;
E. None of the above

Which of the following match the base case of the definition of a list of names below?

In this recursive definition with two cases:
1: a name (no spaces)
2: a name followed by a semicolon and a space followed by a list of names

A. Bob Alice
B. Bob; Alice;
C. Alice; Mary; Ted
D. Owen;
E. None of the above

Which of the following match the base case of the definition of a list of names below?

In this recursive definition with two cases:
1: a name (no spaces)
2: a name followed by a semicolon and a space followed by a list of names

A. Bob Alice
B. Bob; Alice;
C. Alice; Mary; Ted
D. Owen;
E. None of the above

On to the lecture
Given the following code, how many times does the call tree include a base case?

```java
public long combRec(long n, long k) {
    if (n == k || k == 0) {
        return 1;
    } else {
        return combRec(n - 1, k - 1) + combRec(n - 1, k);
    }
}
```

A. 0  
B. 4  
C. 6  
D. 10  
E. Stack Overflow

Question 9

cs165: Peer Recursion

A. 0  
B. 4  
C. 6  
D. 10  
E. Stack Overflow