



Quiz Recursion



cs165 Quiz - Recursion

Question - 1



What does the following code print when $i = 0$?

```
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);
    }
}
```

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



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Question - 1



What does the following code print when $i = 0$?

```
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);
    }
}
```

- A. 1 0
 - B. 0 0
 - C. 0 1
 - D. 0 0 0 0
 - E. **None of the above**
- [Stack overflow](#)



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Question - 1



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

In this recursive definition with two cases:
 a **list of names** is
 1: a **name (no spaces)**
 or
 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



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Question - 3



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

In this recursive definition with two cases:

a **list of names** is

1: a **name (no spaces)**

or

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



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Question - 4



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

In this recursive definition with two cases:

a **list of names** is

1: a **name (no spaces)**

or

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



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Question - 5



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

In this recursive definition with two cases:

a **list of names** is

1: a **name (no spaces)**

or

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**



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Question - 6



On to the lecture



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Question - 7



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

```
System.out.println(combRec(4,2));
```

```
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



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Question - 8



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

```
System.out.println(combRec(4,2));
```

```
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



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Question - 9