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Q>
Given

```
3. public class Spock {
4. public static void main(String[] args) {
5.    int mask = 0;
6.    int count = 0;
7.    if( ((5<7) || (++count < 10)) | mask++ < 10 ) mask = mask + 1;
8.    if( (6 > 8) ^ false) mask = mask + 10;
9.    if(!(mask > 1) &&  ++count > 1) mask = mask + 100;
10.   System.out.println(mask + " " + count);
11.   }
12. }
```

Which two are true about the value of mask and the value of count at line 10?
(Choose two.)
A. mask is 0
B. mask is 1
C. mask is 2
D. mask is 10
E. mask is greater than 10
F. count is 0
G. count is greater than 0

count = 0
mask = 2
Answer: C,F

Which of the following declarations are invalid?
1) int[] a=new int[];
2) int[][] a=new int[3][4];
3) int[][] a=new int[3][];
4) int[][] a=new int[][4];
5) int[][][] a=new int[3][4][5];
6) int[][][] a=new int[3][4][];
7) int[][][] a=new int[3][][5];

Answer: 1,4,7(invalid: beocz of dimension missing)

What is the output of this code?

```
int[] a=new int[3];
System.out.println(a);
System.out.println(a[0]);
```

A. CE
B. [I@...
      0
C. Some problem at the runtime
D. [I@..
      null

Answer: B

What is the output of this code?

```
int[][] a =new int[3][2];
System.out.println(a);
```

```
System.out.println(a[0]);
System.out.println(a[0][0]);
```

A. CE
B. [I@...
     [[I@...
      0
C. Some problem at the runtime
D. [[I@..
     [I@...
      0
E. D. [[I@..
     [I@...
      null

Answer: D

Predict the output

```
int[][] a=new int[2][];
System.out.println(a);
System.out.println(a[0]);
System.out.println(a[0][0]);
```

A. Compile time error
B. 0
     [I@...
     0
C. [[I@...
      null
       0
D. [[I@...
      [I@...
        0
E.C. [[I@...
      null
       NullPointerException

Answer: E

For the above code predict how many objects are created and how many are eligible for garbage collection?

```
int[][] a=new int[3][2];
a[0]=new int[3];
a[1]=new int[4];
a=new int[4][3];
```

A. object created = 3
    eligible for gc = 3
B. object created = 11
    eligible for gc = 6
C. object created = 10
    eligible for gc = 5
D.object created = 10
    eligible for gc = 10
E. None of the above

Answer: B

What is the nature of the following code?

```
class Test {
      int[] a; //instance variable -> memory will be created during object creation
and  default value by JVM
public static void main(String[] args) {
            Test t1=new Test();
            System.out.println(t1.a);
            System.out.println(t1.a[0]);
      }
}
```

A. Compile Time Error
B. 0
      0
C. [I@...
      0
D. null
      ArrayIndexOutOfBoundsException
E. null
     NullPointerException

Answer: E

Q> Here a is declared at instance level

```
int[] a=new int[3];
System.out.println(obj.a);
System.out.println(obj.a[0])
```

A. Compile Time Error
B. 0
      0
C. [I@...
      0
D. null
      ArrayIndexOutOfBoundsException
E. null
     NullPointerException

Answer: C

Q> Predict the nature of the following code

```
class Test {
      public static void main(String[] args) {
             int[] a; //local variable -> can't be used without intialization
            System.out.println(a);
            System.out.println(a[0]);
      }
}
```

A. Compile Time Error
B. 0
      0
C. [I@...
      0
D. null
      ArrayIndexOutOfBoundsException
E. null
     NullPointerException

Answer: A