

2024 AP DAILY: PRACTICE SESSIONS

AP Computer Science A

Session 3 – MCQ

1. Consider the following method.

```
public static int mystery(int[] arr)
{
    int count = 0;
    int curr = arr[arr.length - 1];

    for (int value : arr)
    {
        if (value > curr)
        {
            count = count + 1;
        }
        else
        {
            count = count - 1;
        }
        curr = value;
    }

    return count;
}
```

The following code segment appears in another method of the same class.

```
int[] arr = {4, 14, 15, 3, 14, 18, 19};
System.out.println(mystery(arr));
```

What is printed as a result of executing the code segment?

- a. -7
- b. -6
- c. 3
- d. 5
- e. 7

2. Consider the following code segment.

```
ArrayList<String> items = new ArrayList<String>();  
items.add("A");  
items.add("B");  
items.add("C");  
items.add(0, "D");  
items.remove(3);  
items.add(0, "E");  
System.out.println(items);
```

What is printed as a result of executing the code segment?

- a. [A, B, C, E]
 - b. [A, B, D, E]
 - c. [E, D, A, B]
 - d. [E, D, A, C]
 - e. [E, D, C, B]
3. Assume `mat` is defined as follows.

```
int dim = 4;  
int[][] mat = new int[dim][dim];
```

Consider the following code segment.

```
int sum = 0;  
for (int row = 0; row < dim; row++)  
{  
    sum = sum + mat[row][dim - 1];  
}
```

Assume that `mat` contains the following values before the code segment is executed. Note that `mat[0][3]` is 2.

	0	1	2	3
0	1	1	2	2
1	1	2	2	4
2	1	3	2	6
3	1	4	2	8

What value will `sum` contain after the code segment is executed?

- a. 6
- b. 8
- c. 13
- d. 15
- e. 20