

## Question 1

Correct

Marked out of 1.00

Given an ArrayList, the task is to get the first and last element of the ArrayList in Java.

Input: ArrayList = [1, 2, 3, 4]

Output: First = 1, Last = 4

Input: ArrayList = [12, 23, 34, 45, 57, 67, 89]

Output: First = 12, Last = 89

**Approach:**

1. Get the ArrayList with elements.
2. Get the first element of ArrayList using the get(index) method by passing index = 0.
3. Get the last element of ArrayList using the get(index) method by passing index = size – 1.

**Answer:** (penalty regime: 0 %)

```

1 import java.util.ArrayList;
2 import java.util.Scanner;
3
4 public class Main {
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7         int n = scanner.nextInt();
8         ArrayList<Integer> arrayList = new ArrayList<>();
9         for (int i = 0; i < n; i++) {
10             int element = scanner.nextInt();
11             arrayList.add(element);
12         }
13         System.out.println("ArrayList: " + arrayList);
14         int firstElement = arrayList.get(0);
15         int lastElement = arrayList.get(arrayList.size() - 1);
16         System.out.println("First : " + firstElement + ", Last : " + lastElement);
17         scanner.close();
18     }
19 }
20

```

	Test	Input	Expected	Got	
✓	1	6 30 20 40 50 10 80	ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80	ArrayList: [30, 20, 40, 50, 10, 80] First : 30, Last : 80	✓
✓	2	4 5 15 25 35	ArrayList: [5, 15, 25, 35] First : 5, Last : 35	ArrayList: [5, 15, 25, 35] First : 5, Last : 35	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 1.00

The given Java program is based on the ArrayList methods and its usage. The Java program is partially filled. Your task is to fill in the incomplete statements to get the desired output.

list.set();  
list.indexOf();  
list.lastIndexOf()  
list.contains()  
list.size();  
list.add();  
list.remove();

The above methods are used for the below Java program.

**Answer:** (penalty regime: 0 %)

Reset answer

```
1 import java.util.ArrayList;
2 import java.util.Scanner;
3
4 public class Prog {
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7         int n = sc.nextInt();
8
9         ArrayList<Integer> list = new ArrayList<Integer>();
10
11         for (int i = 0; i < n; i++) {
12             list.add(sc.nextInt());
13         }
14
15         // Printing initial value of ArrayList
16         System.out.println("ArrayList: " + list);
17
18         // Replacing the element at index 1 with 100
19         list.set(1, 100);
20
21         // Getting the index of first occurrence of 100
22         System.out.println("Index of 100 = " + list.indexOf(100));
23
24         // Getting the index of last occurrence of 100
25         System.out.println("LastIndex of 100 = " + list.lastIndexOf(100));
26
27         // Check whether 280 is in the list or not
28         System.out.println(list.contains(280)); // Output: false
29
30         // Print ArrayList size
31         System.out.println("Size Of ArrayList = " + list.size());
32
33         // Inserting 500 at index 1
34         list.add(1, 500);
35
36         // Removing an element from position 3
37         list.remove(3);
38
39         // Printing the final ArrayList
40         System.out.println("ArrayList: " + list);
41
42         sc.close();
43     }
44 }
45
```

	Test	Input	Expected	Got	
✓	1	5 1 2 3 100 5	ArrayList: [1, 2, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 100, 100, 5]	ArrayList: [1, 2, 3, 100, 5] Index of 100 = 1 LastIndex of 100 = 3 false Size Of ArrayList = 5 ArrayList: [1, 500, 100, 100, 5]	✓

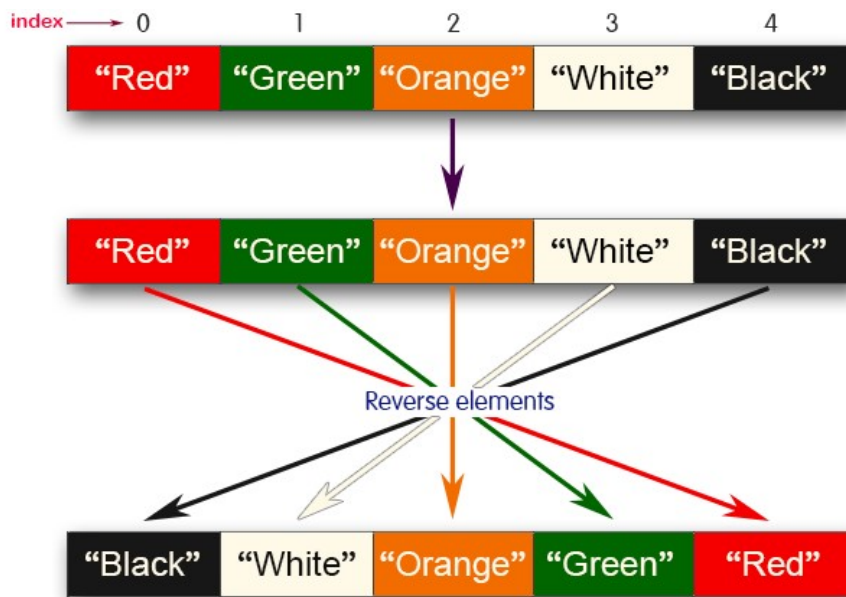
Passed all tests! ✓

## Question 3

Correct

Marked out of 1.00

Write a Java program to reverse elements in an array list.



Sample input and Output:

Red

Green

Orange

White

Black

Sample output

List before reversing :

[Red, Green, Orange, White, Black]

List after reversing :

[Black, White, Orange, Green, Red]

Answer: (penalty regime: 0 %)

```

1 import java.util.ArrayList;
2 import java.util.Collections;
3 import java.util.Scanner;
4
5 public class Main {
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         ArrayList<String> list = new ArrayList<>();
9
10        // Read the number of elements
11        int n = sc.nextInt();
12        sc.nextLine(); // Consume the newline character after the integer input
13
14        // Read each element and add it to the ArrayList
15        for (int i = 0; i < n; i++) {
16            String element = sc.nextLine();
17            list.add(element);
18        }
19
20        // Printing the list before reversing
21        System.out.println("List before reversing : ");
22        System.out.println(list);
23        // Reversing the list
24        Collections.reverse(list);
25
26        // Printing the list after reversing

```

	Test	Input	Expected	Got	
✓	1	5 Red Green Orange White Black	List before reversing : [Red, Green, Orange, White, Black] List after reversing : [Black, White, Orange, Green, Red]	List before reversing : [Red, Green, Orange, White, Black] List after reversing : [Black, White, Orange, Green, Red]	✓
✓	2	4 CSE AIML AIDS CYBER	List before reversing : [CSE, AIML, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIML, CSE]	List before reversing : [CSE, AIML, AIDS, CYBER] List after reversing : [CYBER, AIDS, AIML, CSE]	✓

Passed all tests! ✓

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