

1. Writing a program in Java implementing the linear search algorithm

```
package OnlinePractice4;

import java.util.*;

class LinearSearch {

    static int search(int arr[], int n, int x)
    {
        for (int i = 0; i < n; i++) {
            if (arr[i] == x)
                return i;
        }
        return -1;
    }

    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter size to array : ");
        int n = sc.nextInt();

        System.out.println("Enter array element : ");
        int arr[] = new int[n];

        for(int i = 0 ; i<arr.length ;++i) {
            arr[i]=sc.nextInt();
        }

        System.out.println("Enter which Element Search : ");
        int x = sc.nextInt();

        int index = search(arr, n, x);

        if (index == -1)
            System.out.println("You search wrong element");
    }
}
```

```
        else
            System.out.println("Element found at position " +
index);
    }
}
```

output-

Enter size to array :

6

Enter array element :

11

24

34

22

56

35

Enter which Element Search :

34

Element found at position 2