Minimum Platforms 4

Given the arrival and departure times of all trains that reach a railway station, the task is to find the minimum number of platforms required for the railway station so that no train waits. We are given two arrays that represent the arrival and departure times of trains that stop.

Input Format

size of the array first array is arrival time elements second array is departure times elements

Constraints

Constraints: $1 \leq n \leq 50000$
$0000 \leq A[i] \leq D[i] \leq 2359$

Expected Time Complexity: O(nLogn) Expected Auxiliary Space: O(1)

Output Format

print the minimum platforms

Sample Input 0

```
6
900 940 950 1100 1500 1800
910 1200 1120 1130 1900 2000
```

Sample Output 0

```
3
```

Explanation 0

Minimum 3 platforms are required to safely arrive and depart all trains.

Sample Input 1

```
3
900 1100 1235
1000 1200 1240
```

Sample Output 1

```
1
```

Java 15

```java
import java.io.*;
import java.util.*;

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

        int n = z.nextInt();
        int arr[] = new int[n];
        int dep[] = new int[n];

        for (int i = 0; i < n; i++){
            arr[i] = z.nextInt();
        }
        for (int i = 0; i < n; i++){
            dep[i] = z.nextInt();
        }

        Arrays.sort(arr);
        Arrays.sort(dep);

        int i = 1, j = 0;
        int p = 1, ans = 1;

        while (i < n && j < n) {
            if (arr[i] <= dep[j]) {
                p++;
                i++;
            } else {
                p--;
                j++;
            }
            ans = Math.max(ans, p);
```

```
34          }
35
36          System.out.println(ans);
37      }
38  }
```

Line: 38 Col: 2

Upload Code as File Test against custom input Run Code Submit Code

Testcase 0 ✔ Testcase 1 ✔

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
6
900 940 950 1100 1500 1800
910 1200 1120 1130 1900 2000
```

Your Output (stdout)

```
3
```

Expected Output

```
3
```