

<https://course.acciojob.com/idle?question=a7a680ac-a03a-4057-92c0-acf1f9bcc4a3>

● EASY

● Max Score: 20 Points

Maximum Product of Two Elements in an Array

Given the array of integers `arr` of size `N`, you will choose two different indices `i` and `j` of that array. Return the maximum value of `nums[i]-1)*(nums[j]-1)`.

Input Format

The first line of input contains `N` representing the number of elements.

The second line of input contains `N` space separated integers, representing elements of the array `arr`.

Output Format

The task is to find the maximum value of `(nums[i]-1)*(nums[j]-1)`.

Example 1

Input

```
5
3 1 4 5 2
```

Output

```
12
```

Explanation

If you choose the indices $i=2$ and $j=3$ (indexed from 0), you will get the maximum value, that is, $(\text{nums}[2]-1)(\text{nums}[3]-1) = (4-1)(5-1) = 3*4 = 12$.

Example 2

Input

```
4
1 5 4 5
```

Output:

```
16
```

Explanation

Choosing the indices $i=1$ and $j=3$ (indexed from 0), you will get the maximum value of $(5-1)*(5-1) = 16$.

Constraints

$2 \leq N \leq 500$

$1 \leq \text{arr}[i] \leq 10^3$

Topic Tags

- **Arrays**

My code

// in java

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

```
class Accio {
    static int maxProd(int arr[], int n)
    {
        //Write your code here
        Arrays.sort(arr);
        return (arr[n-1]-1)*(arr[n-2]-1);
    }
}
```

```
public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n;
        n = sc.nextInt();
        int arr1[] = new int[n];
        for(int i=0;i<n;i++)
            arr1[i] = sc.nextInt();
        Accio Obj = new Accio();
        int result= Obj.maxProd(arr1, n);
        System.out.print(result + " ");
        System.out.println("\n");
    }
}
```