https://course.acciojob.com/idle?question=c0db2b0b-a5c5-4c27-8004-e80d6489505d

- EASY
- Max Score: 30 Points

AS Sorting Problem 5

Given an integer array `nums`, choose four distinct indices `w`, `x`, `y`, and `z` such that the product difference between pairs (nums[w], nums[x]) and (nums[y], nums[z]) is maximized.

Note : You need to complete the given function. Input and output will be handled by the driver code.

Input Format

The first line contains integer N denoting the size of array nums

The second line contains N integers denoting the array elements

Output Format

Print the maximum product difference between the 2 pairs.

Example 1

Input

```
5
5 6 2 7 4
```

Output

```
34
```

Explanation

The chosen pairs of indices (0-indexed) are (1, 3) and (2, 4).

`7 * 6 = 42` and `2 * 4 = 8`. `42 - 8 = 34`.

Example 2

Input

```
4
4 3 2 1
```

Output

```
10
```

Explanation

The chosen pairs of indices (0-indexed) are (0, 1) and (2, 3).

`4 * 3 = 12` and `2 * 1 = 2`. `12 - 2 = 10`.

Constraints

4 <= N <= 10^5

1<= nums[i] <= 10^4

Topic Tags

- **Arrays**

My code

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

```
public class Main {
    public static void main(String[] args) throws Exception {
        BufferedReader br = new BufferedReader(new
InputStreamReader(System.in));
        String[] inputLine;
        inputLine = br.readLine().trim().split(" ");
        int n = Integer.parseInt(inputLine[0]);
        int[] arr = new int[n];

        inputLine = br.readLine().trim().split(" ");
        for (int i = 0; i < n; i++) {
            arr[i] = Integer.parseInt(inputLine[i]);
        }

        int ans= sorting5(n, arr);
        System.out.println(ans);
  }

        static int sorting5(int n, int[] arr){
        // Write your code here
                Arrays.sort(arr);
                return (arr[n-1]*arr[n-2]-arr[0]*arr[1]);
}

}
```