https://course.acciojob.com/idle?question=b48cb3ed-2269-42f3-8639-d17ae2ce1d8a

- MEDIUM
- Max Score: 20 Points

Problem Description

You are given an array of N integers, A1, A2 ,..., AN. Print maximum value of f(i, j) for all 1 ≤ i, j ≤ N.

f(i, j) is defined as |A[i] - A[j]| + |i - j|, where |x| denotes absolute value of x.

For example,

A=[1, 3, -1]

f(1, 1) = f(2, 2) = f(3, 3) = 0 f(1, 2) = f(2, 1) = |1 - 3| + |1 - 2| = 3 f(1, 3) = f(3, 1) = |1 - (-1)| + |1 - 3| = 4 f(2, 3) = f(3, 2) = |3 - (-1)| + |2 - 3| = 5

Print 5

Input Format The first line contains integer n . The second line contains n integers arr[i].

Output Format Print the maximum value of f(i, j) .

Example Input

3 1 3 -1

Example Output

5

Constraints:

2 <= arr.length <= 40000 -10^6 <= arr[i] <= 10^6

Topic Tags

- Math
- Arrays

My code

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

public class Main
{
	public static void main (String[] args) throws
java.lang.Exception
	{
		//your code here
	Scanner s=new Scanner(System.in);
	int n=s.nextInt();
	int arr[]=new int[n];
	for(int i=0;i<n;i++)
	  arr[i]=s.nextInt();
	int max=0;
	for(int i=0;i<n-1;i++)
	for(int j=i+1;j<n;j++)
	  {
	   int a=arr[i]-arr[j] ;
	    int b=arr[j]-arr[i] ;
	    int m=(a>b)?a:b;
	    m=m+j-i;
```

```
            if(m>max)max=m;
          }
        System.out.print(max);
          }
}
```