

<https://course.acciojob.com/idle?question=b172ade4-20ac-441e-b276-7f72483c8553>

● EASY

● Max Score: 30 Points

# Maximum difference between two elements in an Array

Write a program to find out the maximum difference between any two element in an array.

Note: if an element is `arr[i]` and another element is `arr[j]` then difference will be `|arr[i]-arr[j]|`.

## Input Format

First line contains `n` size of the array.

Second line contains `n` elements of the array. Elements will always be positive integers.

`n` will always be greater than 1.

## Output Format

Print the maximum difference between any two element of an array.

## Example 1

Input

```
4
16 24 89 35
```

Output

```
73
```

Explanation

Maximum possible difference is in pair (16,89) which is 73

## Example 2

Input

```
5
9 1 2 8 7
```

Output

8

Explanation

Maximum possible difference is in pair (9,1) which is 8

## Constraints

$2 \leq n \leq 10^6$

$0 < arr[i] \leq 10^9$

### Topic Tags

- [Loops](#)
- [Basics](#)
- [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();
        Arrays.sort(arr);
        System.out.print(arr[n-1]-arr[0]);
    }
}
```