Day 14: All about Scope!

Welcome to Day 14! Congratulations on getting half way through the series! Check out a video review of scope and importing here, or just jump right into the problem.

In this challenge, you will create a program that takes *N* non-negative integers as input and finds the greatest absolute difference between two of the *N* integers, and then print this difference to the console.

There is a class *Difference* given in the editor with one private instance array *elements* which stores the *N* non negative integers and public integer *maxDifference* to store the greatest absolute difference between the two of the *N* integers.

Code for handling input/output is already given in the editor. Your task is to write the *constructor* for the class *Difference* and the method *computeDifference* which finds the greatest absolute difference between any two numbers in the input array and stores it in *maxDifference*.

Good Luck!

Input Format

First line contains an integer *N* representing size of the array. Next line contains *N* integers separated by space.

Constraints
$1 \le N \le 10$
$1 \le elements[i]\le 100$ where $ 1\le i \le N $

Output Format

Output the the greatest absolute difference between two of *N* integers in the array.

Sample Input

```
3
1 2 5
```

Sample Output

```
4
```

Explanation

```
|1-2|=1
|1-5|=4
|2-5|=3
```

Hence 4 is the largest.