Score Calculation

Problem A

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The 1st Buddhist Sin Tak College Computer Club Programming Contest

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stpc();

Background

Problem Idea by `pepper1208`
Preparation by `pepper1208`, `rina__owo`

Problem Restatement

Given N integers.

Find the difference between the **maximum integer** and the **minimum integer** between them.

Statistics

Points are given per subtask in this problem. You have to pass all the checkpoint in the subtask in order to get the points of the subtask.

Attempts: 92

0 points	13	+	0	=	13
Subtask 1 (21 points)	0	+	11	=	11
Subtask 2 (28 points)	0	+	9	=	9
Subtask 3 (51 points)	0	+	9	=	9

First solved by **Law Chun King** at **3m 39s**

Subtasks

Subtask	Score	N
1	21	$= 2$
2	28	$= 3$
3	51	$\leq 10^6$

Subtask 1 (21 pts): $N = 2$

Just subtract two integers and output the result!

Be careful about that we are finding the **difference**, therefore the output should be always positive.

Score: **21** (Cumulative Score: **21**)

Subtask 2 (28 pts): $N = 3$

We have three integers now, we need to use some if statements to find out the maximum and the minimum element between those integers.

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Then, output the difference between the maximum and the minimum element.

Score: **28** (Cumulative Score: **59**)

Full Solution

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Insert all input integers into an array.
Then, linear search to find the maximum element and the minimum element.
Finally, output their difference.

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Set up a variable that stored the maximum element.

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Then, iterate the whole array using a linear search. If the element iterated is bigger than the value stored in the required variable, update the variable.

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After the whole iteration, the variable will store the maximum element inside the array.

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Initialize the element to be the smallest possible integer. In the problem, the smallest possible integer is 0.

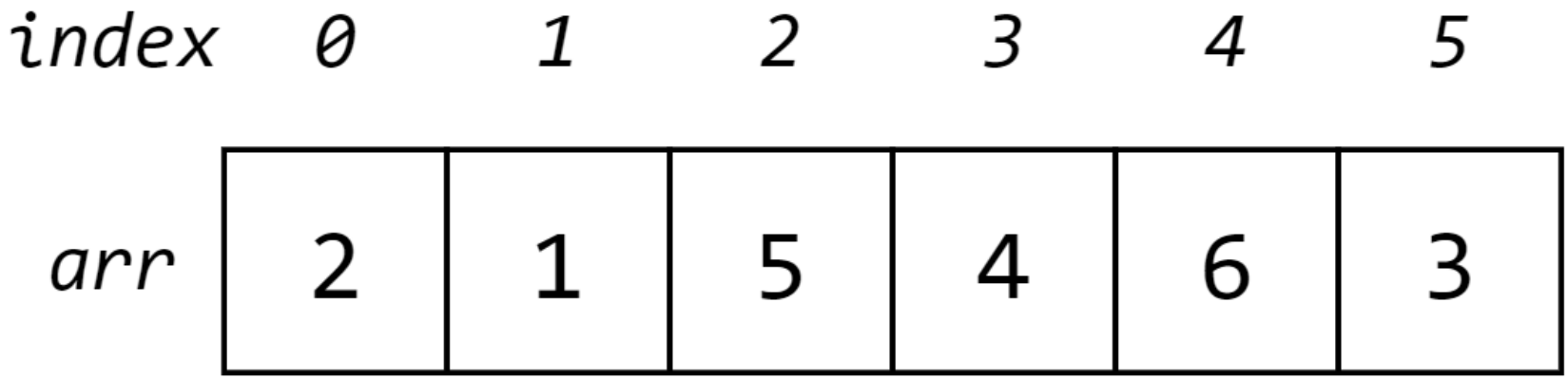
Then, iterate the whole array using a linear search. If the element iterated is bigger than the value stored in the required variable, update the variable.

After the whole iteration, the variable will store the maximum element inside the array.

The same logic can be also be applied to find the minimum element inside the array.

Score: **51** (Cumulative Score: **100**)

Demonstration



Takeaways

1. Array is the most important concept in OI. Be familiar with them!
2. Reduce your time on doing easy problem.