

Interval of an Interval

Lili is given a sequence of non decreasing numbers ($A_i \leq A_{i+1}$)

She wants to know the interval between the maximum interval and the minimum interval from the sequence.
Interval is an absolute difference between 2 numbers.

Format Input

The input will consists of multiple test cases.

The first line of the input contains an integer T the number of test cases.

For every cases the first line contains an integer N.

Next line will contain N numbers A_i .

Format Output

For every test cases output "Case #X: Y" where X is the number of the test case and Y is the result.

Constraints

$1 \leq T \leq 100$

$2 \leq N \leq 100$

$-1000000 \leq A_i \leq 1000000$

Sample Input 1	Sample Output 1
1 5 1 2 3 4 5	Case #1: 3

Sample Input 2	Sample Output 2
2 4 0 2 4 6 4 1 3 5 7	Case #1: 4 Case #2: 4

Sample Input 3	Sample Output 3
1 2 3 4	Case #1: 0

Explanation

For sample test case 1:

The maximum interval is $|5-1|=4$

The minimum interval is $|2-1|=1$

The interval between maximum and minimum is $|4-1|=3$