Subtraction

Time limit per test

3 seconds

Sumaia is a brilliant student; she is just a six years old. She knew only one mathematical operation: addition (+). Yesterday she learned subtraction using minus operator (-). She went home and starts playing with it. She realized that when she subtract 3 numbers the answer depends on the order of executing the subtractions even when she didn't change the order of the 3 numbers themselves (subtraction is not an associative operation). For example: 2 – ((5 – 1) – 8) = 6, while (2 – 5) – (1 – 8) = 4 She tried to find a way to maximize the answer of subtract sequence of numbers without changing their order. Of course, you will not let her alone with this mathematical task! So please help her as a part of your training.

Input

First line contains K (1 <= K <= 100) number of test cases. Each line in the next K lines represents one test case, containing an integer which represents the size of the sequence followed by the sequence of numbers that should be subtracted without changing their order. Each number is in range [1,999]. Each test case may contain from 1 to 150 numbers.

Output

For each test case output one line containing one number represents the maximum answer of subtract test case sequence numbers without changing their order.

Sample test(s)

Input
2
4 2 5 1 8
3 6 2 1

Output
6
5