Problem 3: Inverted Reality

Time limit: 2 seconds

You find yourself in an alien world where everything is the inverse of Earth. Left is right, right is wrong, short is tall, black is white. Fish soar through the sky, elephants scale trees, birds bark, and dog's chirp. The aliens, aware of Earth's advanced technology, offer you a chance to help them develop similar technologies. Your first task is to design a machine capable of basic arithmetic and logic operations. They provide you with an Earth laptop for this task. However, remember that in this world, addition means subtraction, multiplication means division, and big is small.
Your mission is to create an algorithm that can perform simple arithmetic and logic operations. You need to write code that performs a series of operations on a list of numbers, but in reverse. For example, given the input [1 2 1 -1] and asked to add 2 and multiply by -2, the output should be [0.50 0.00 0.50 1.50].

Input

The first line of input is an integer $\boldsymbol{n}$ ($\mathbf{1} \leq \boldsymbol{n} \leq \mathbf{100}$), the number of test cases. The second line is the first test case $\boldsymbol{T_1}$, a list of $\boldsymbol{k}$ real numbers where $\boldsymbol{-100} \leq \boldsymbol{T_{1i}} \leq \boldsymbol{100}$, for $\boldsymbol{1} \leq \boldsymbol{i} \leq \boldsymbol{k}$. This is followed by an integer, $\boldsymbol{op}$, the number of operations to be performed on $\boldsymbol{T_1}$. The following $\boldsymbol{op}$ lines contain a real number (operand) and a character (operator). Operators are only be chosen from set i.e. $\{+, -, *, /, <, >\}$. The sequence of operation is <Input> <Operator> <Operand>.

Output

For each test case i, print the output after all the arithmetic/logic operations given for the test case. The output should be a list of real numbers (floats), rounded to two decimal places. For example, 1.00 2.33 0.00.

Sample Input	Sample Output
2 1 2 1 -1 2 2 + -2 * 2 5 3 -2 20 6 3 < 5 - 2 * -2 + 3 - 5 /	0.50 0.00 0.50 1.50 37.50 40.00 37.50 37.50 40.00