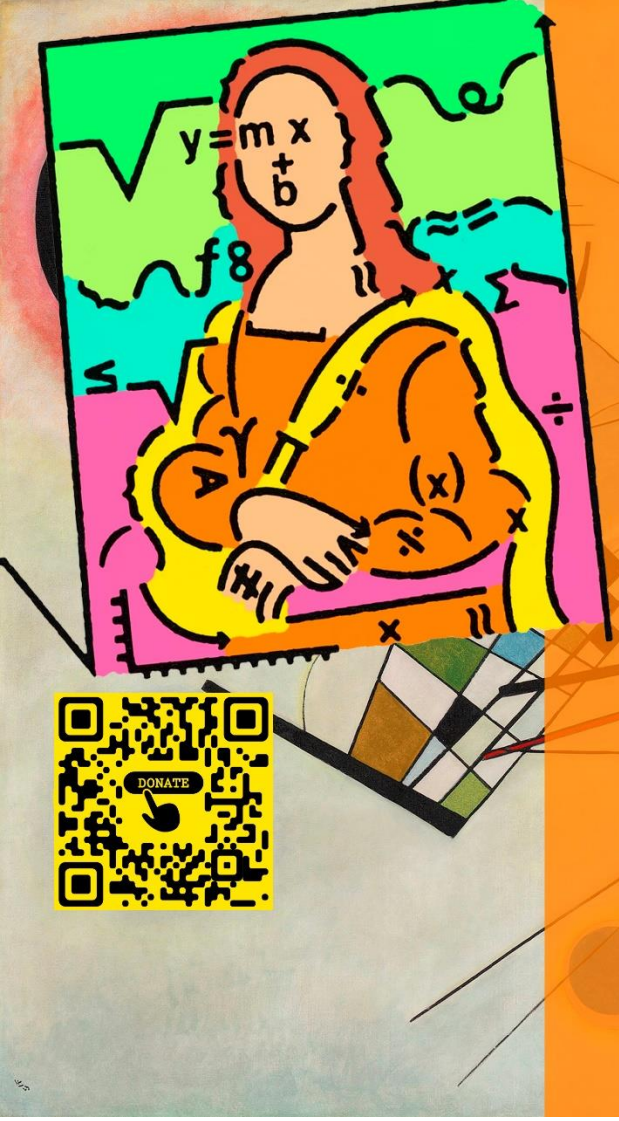

GLUSHKOVCYBER

CONTEST THROUGH RESEARCH

THE ALGEBRAIC ART OF PROGRAMMING

Back in the 1970s, at the Institute of Cybernetics in the department of Viktor Mykhailovych Glushkov, the scientific area of automatic theorem proving was developing. The “SAD” system (Automatic Proof System) performed various tasks of proving formulas, solving equations in various theories based on mathematical definitions, systems of axioms and auxiliary lemmas. A special language of mathematical texts was created. The system developed, and then a system of algebraic programming was created, the basis of which was the processing of algebraic terms. In the system, solvers were created in various theories that processed and constructed algebraic terms.

ALGEBRAIC TERM CONSTRUCTING

The proposed problem is one of those whose solution is the creation of a specific solver.

Problem formulation. Given **N** natural numbers $a_1, a_2, \ldots, a_N$, natural number **B** and arithmetic operations “ + ”, “ – “, “ * ”, “ / ”.

Create a program that, using **all** the given numbers $a_1, a_2, \ldots, a_N$ and the specified arithmetic operations, allows you to get an algebraic term, the result of which is the number **B**.

The following actions are allowed:

1. You can use brackets.

2. Numbers can be changed by places.

3. There is no division with a remainder (modulo division) operation at all.

Input data

The number of numbers **N (2 ≤ N ≤ 30)** is specified in the first line.

In the second line, **N** natural numbers $a_1, a_2, \ldots, a_N$ are specified, the values of which are in the range from **1** to **99**.

The third line contains the number **B ($0 \le B \le 10^{18}$)**.

Output data

Output the resulting algebraic term or the message **"No"** if the result cannot be achieved. If there can be several such algebraic terms, then derive any of them.

Example 1	**Example 2**
Input data	**Input data**
4 2 2 3 4 10	6 3 9 2 6 3 12 9
Output data	**Output data**
(2+3)*4/2	12-3+9*2-6*3

Note. The tests are designed in such a way that half of them can be answered without using division and parentheses.