A. 24 Game

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Little X used to play a card game called "24 Game", but recently he has found it too easy. So he invented a new game.

Initially you have a sequence of n integers: $1, 2, ..., n$. In a single step, you can pick two of them, let's denote them a and b, erase them from the sequence, and append to the sequence either $a + b$, or $a - b$, or $a \times b$.

After $n - 1$ steps there is only one number left. Can you make this number equal to 24?

Input

The first line contains a single integer n ($1 \le n \le 10^5$).

Output

If it's possible, print "YES" in the first line. Otherwise, print "NO" (without the quotes).

If there is a way to obtain 24 as the result number, in the following $n - 1$ lines print the required operations an operation per line. Each operation should be in form: "$a\ op\ b = c$". Where a and b are the numbers you've picked at this operation; op is either "+", or "-", or "*"; c is the result of corresponding operation. Note, that the absolute value of c mustn't be greater than 10^{18}. The result of the last operation must be equal to 24. Separate operator sign and equality sign from numbers with spaces.

If there are multiple valid answers, you may print any of them.

Examples

input
1
output
NO

input
8
output
YES 8 * 7 = 56 6 * 5 = 30 3 - 4 = -1 1 - 2 = -1 30 - -1 = 31 56 - 31 = 25 25 + -1 = 24

Codeforces Round #268 (Div. 1)
Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[Start virtual contest]

→ Problem tags

constructive algorithms   greedy   math
No tag edit access

→ Contest materials

- Announcement   ✕
- Tutorial   ✕