Problem A
PMA Expressions

Time limit: 1 second
Memory limit: 256 megabytes

Problem Description

A Parenthesis-Multiplication-Addition (PMA) expression consists of only parentheses, multiplications, additions and digits. That is, a PMA expression only uses `(`, `)`, `*` (multiplication), `+` (addition), and numbers. To make the problem easier, we define valid PMA expressions for this problem as follows.

- A number is a valid PMA expression. For example, 4 is a valid PMA expression.
- If *expr* is a valid PMA expression, then (*expr*) is a valid PMA expression. For instance, (4) is a valid PMA expression, since 4 is.
- If $expr_1$ and $expr_2$ are valid PMA expressions, then both $expr_1 + expr_2$ and $expr_1 * expr_2$ are also valid. For instances, $1 + 2$ and $1 * 2$ are valid, since 1 and 2 are valid.
- A valid PMA expression must be derived from the above rules.

Your task is to evaluate valid PMA expressions. You should output the results modulo $10^9 + 7$. You can implement the program with 64-bit integers.

Input Format

The input is terminated by end-of-file, and there are at most 100 test cases. Each test case is a line consisting of `(`, `)`, `*`, `+`, and `0`, `1`, ..., `9`. For convenience, you may assume any number in the input is a single digit. I.e., only $0, 1, 2, 3, 4, 5, 6, 7, 8, 9$ are in the input. However, the intermidiate results might be much larger.

Note: all test cases are valid PMA expressions of length at most 2048.

Output Format

For each test case, output the evaluation result modulo $10^9 + 7$.

Sample Input

```
1+2*3+4
5*6*7*8*9
```

Sample Output

```
11
15120
```