CSO-102 : Data Structures – Task 3.

Sheldon Cooper is now confused by the way his laptop is working after the “Fun with Flags” fiasco. Therefore, he decides to test his laptop with the most basic task that a computer was originally designed to perform – calculations.

Sheldon inputs N simplification BODMAS expressions and checks if the output for each of the problems is correct or not. But Howard knew that Sheldon would resort to something like this and had already tweaked Sheldon’s CPU as well. Howard knows that the CPU converts a given infix expression to postfix before evaluating it. He has therefore modified his CPU such that it cannot progress beyond the conversion of the expression to postfix – troubling Sheldon again!

As a result, each of Sheldon’s N expressions is returned with the postfix expression of the same instead of the correct output.

For each of the N simplification expressions, your task is to find out what Sheldon’s laptop will output.

Input:

The first line contains an integer N (number of expressions entered by Sheldon) (1 <= N <= 100).

Each of the next N lines contains an infix expression.

It is guaranteed that the operands are numeric with values between 1 and 9 and the operators are (,), /, *, +, -. There are no spaces between any 2 characters.

Output:

Output N lines – the respective postfix expression for each infix expression.

Instructions:

1. You have to format the output as expected.
2. Write the code preferably in C. If you use C++, you are not allowed to use the stack library.

Sample Input:

```
3
9-3
1+2*4
(2+5)/3
```

Sample Output:

```
93-
124*+
25+3/
```