Equation

Input and Output

Write a program that changes an infix expression to a postfix expression according to the following specifications.

The infix expression to be converted is in the input file in the format of one character per line, with a maximum of 50 lines in the file. For example, (3+2)*5 would be in the form:

(
3
+
2
)
*
5
2.

The input starts with an integer on a line by itself indicating the number of test cases. Several infix expressions follows, preceded by a blank line.

3. The program will only be designed to handle the binary operators +, -, *, /.

4. The operands will be one digit numerals.

5.

The operators * and / have the highest priority. The operators + and - have the lowest priority. Operators at the same precedence level associate from left to right. Parentheses act as grouping symbols that over-ride the operator priorities.

6.

The output file will have each postfix expression all on one line. Print a blank line between different expressions.

7. Each testcase will be an expression with valid syntax.

Sample Input

1 (3 + 2) *

Sample Output

Miguel Revilla 2000-08-31