

Infix to Postfix Expression

Infix: An infix expression is a single letter, or an operator, preceded by one infix string and followed by another Infix string. Example-

A

A+B

(A+B)+(C-D)

Postfix: A postfix expression (also called Reverse Polish Notation) is a single letter or an operator, preceded by two postfix strings. Every postfix string longer than a single variable contains first and second operands followed by an operator. Example-

A AB+

AB+CD-+

Convert Infix expression to Postfix expression.

Input Format

Input will be in string format like-

A+B Operand will be alphanumeric with both lower case and upper case

Operator can be +,-,/,*,^ Parenthesis allowed are {},[],()

Constraints

Length(input string) <=1000000

Output Format

Output should be return as string format like-

AB+

Sample Input 0

A+B

Sample Output 0

AB+

Sample Input 1

(A+B) + (C-D)

Sample Output 1

AB+CD-+

