Simple Calculate

You have been tasked with developing a program capable of analyzing arithmetic expressions using Lex and Yacc to handle input mathematical expressions. This program should handle addition, subtraction, multiplication, and division while considering operator precedence and scenarios without parentheses.

Input

The input will contain only one expression. You should account for the precedence of different operators.

The number will be either an integer or a floating-point number, and will not contain positive, negative sign, and prefix zero. Also, the floating-point numbers are allowed to have without digits before or after the decimal point. (ex. .1, 1., 1.1)

You should ignore any whitespace character in the input.

(Note: In your code, the type declaration for numbers should use float.)

Output

For each testcase, output the result of expression. The output should be specified to three decimal points. (ex. 1.000)

If an error occurs during the parsing process or the expression encounters division by zero, output "Invalid Value".

You don’t have to print newline in each testcase.

Sample

Sample Input	Sample Output
1+3/3-2*5	-8.000
1 + 2 -3 / 1	0.000
.1 + 2. + 1.1	3.200
1+a-a*b/b	Invalid Value
1 / 0	Invalid Value
(1+2)	Invalid Value