

3380 Single Digit Adder

Write a program that can evaluate expressions from the following roughly BNF (Backus Naur Form) grammar:

```
expr ::= term | expr '+' term | expr '-' term  
unary_op ::= '+' term | '-' term  
term ::= '(' expr ')' | '(' unary_op ')' | literal  
literal ::= [0..9]
```

There will be no whitespace within an expression. All expressions will consist solely of the characters '(', ')', '+', '-', and the digits '0' through '9'. You may assume that all input is well-formed.

Input

The input will consist of one expression per line followed by a newline. There will be no blank lines in the file.

Output

For each expression, output its integer value, followed by a single newline.

Sample Input

```
1  
(-2)+3  
(1-(2+3))  
(1-2+3)  
(1-(+(2-3)))
```

Sample Output

```
1  
1  
-4  
2  
2
```