

Using Stacks to Evaluate Postfix Expressions

The algorithm:

```
Scan input from left to right
  if (input is a number)
    push it onto the stack
  else if (input is an operator)
    obtain 2 numbers from, and pop them off, the stack
    perform the operation (NOTE: 2nd number obtained must
                           be made the left operand)
    push the result onto the stack
  else
    do nothing (simply discard input)
The stack now contains the desired result
```

E.g.: Use a stack to evaluate 5 3 2 * + 4 - 5 +

(NOTE: In the following, the stack has the *top to the right*.)

Symbol	Stack	Remarks
-----	-----	-----
5	5	
3	5 3	
2	5 3 2	
*	5 6	3 * 2 = 6
+	11	5 + 6 = 11
4	11 4	
-	7	11 - 4 = 7
5	7 5	
+	12	7 + 5 = 12
		Answer: 12
