CSI33 lecture 8

In-class assignment and solutions/answers:

1) Re-write expression $7*(2+5)-3*(6-7)$ in postfix notation

Answer: $725+*367-*$

2) Re-write the expression $32573-+*-$ (it is in postfix notation) in infix notation (common way)

Answer: $3-2*(5+(7-3))$

Comment: we start with 7-3, then we do $5+(7-3)$, then $2*(5+(7-3))$, and finally $3-2*(5+(7-3))$

3) # UnitTesting Stack.py's push and size methods

from Stack import *
import unittest

class Tests(unittest.TestCase):
    def testPush(self):
        """ tests push method by putting a value into a stack, and retrieving it""
        testvalue = 23
        mystack = Stack()
        mystack.push(testvalue)
        self.assertEqual(mystack.pop(), testvalue)

    def testSize(self):
        """ test the size method by putting values from the sequence into a stack, and verifying the size of the stack with the length of the sequence ""
        teststackseq = [11,22,33,44,55,66,77,88,99] # length is 9
        mystack = Stack()
        for i in range(len(teststackseq)):
            mystack.push(teststackseq[i])

        self.assertEqual(mystack.size(), len(teststackseq))

unittest.main()