Program Assignment #3

Due on Wednesday February 18th at 11:59pm

The focus of this program is the use of branches and loops.

Write a program that will initially display the following menu and prompt the user for a selection:

1) Signed Add
2) Signed Sub
3) Complex Sum
4) Complex Difference
5) Complex Multiply
6) X ^ Y

   Enter your selection:

The operations for selections 1-5 are the same as those performed in Assignments 1 and 2. After the selection is made, prompt the user for the required inputs and display the result.

Selection 6 should perform the following operation: take an integer (X) as a base and another integer (Y) as an exponent and compute the base to the power of the exponent. Assume the base and exponent are positive and make sure that your program works when the exponent is zero. Here is the sample output:

   Enter Base (X): 2
   Enter Exponent (Y): 3
   Result: 8

As with Program 1, use input.s for I/O. Since input.s only reads in positive integers, you will only be required to accept positive integers as input

Sample Output for Complex Sum selection (Red is user input):

1) Signed Add
2) Signed Sub
3) Complex Sum
4) Complex Difference
5) Complex Multiply
6) X ^ Y

Enter your selection: 3

Enter r1: 1
Enter c1: 1
Enter r2: 1
Enter c2: 2

Result: (1+1j) + (1+2j) = (2 + 3j)

Sample Output for X ^ Y selection (Red is user input):

1) Signed Add
2) Signed Sub
3) Complex Sum
4) Complex Difference
5) Complex Multiply
6) X ^ Y

Enter your selection: 6

Enter Base (X): 2
Enter Exponent (Y): 3

Result: 8