CSE 1321L: Programming and Problem Solving I Lab

Lab 7

Loop Structures

Exercise #1: Design and implement a program (name it `Shape`) that uses next loops to printout the shape shown below. Document your code.

```
               *
              ***
             *****
            *******
           *********
          ***********
         *************
        ***************
```

Exercise #2: Design and implement a program (name it `SumEven`) that uses while loops to read an integer number between 20 and 60, then the program prints out the entered value followed by the sum of all even integer values between 2 and the entered number (including the entered value if even). Use a while loop to validate the user input before determining and printing the sum. Document your code and properly label the input prompt and the outputs as shown below.

Sample run 1:

Entered value: 20
Sum of even numbers between 2 and 20 is 110

Sample run 2:

Entered value: 25
Sum of even numbers between 2 and 25 is 156

Sample run 3:

Entered value: 60
Sum of even numbers between 2 and 60 is 930

Exercise #3: Write a nested loop that asks the user for symbol (store in a char) and a number. The loop should output a rectangle (or square) of the character that is of the height and width of the number. E.g., if I input 4 and *, I would get:

****
****
****
****

<u>Instructions:</u>

1. Programs must be working correctly.
2. Programs must be completed and checked before working the assignment.
3. Programs must be checked by the end of the designated lab session.