

Nested Loops Practice Assignment

For this assignment you will practice writing several nested for loops. You will try to write code that will result in the console output shown below for each "Test Pattern"

For example:

Console Output for Pattern A:

```
Test Pattern "A"  
12345  
12345  
12345  
12345  
12345
```

Can be generated using the following code:

```
System.out.println("Test Pattern \"A\"");  
for (int a = 1; a <= 5; a++) {  
    for (int b = 1; b <= 5; b++) {  
        System.out.print(b);  
    }  
    System.out.println();  
}
```

Special Notes:

- In order to output a " to the console you must use the escape sequence \"
- To get full credit for your answer, you **must** use nested loops in your answer!

Console Output for Pattern B:

```
Test Pattern "B"  
1  
12  
123  
1234  
12345
```

Console Output for Pattern D:

```
Test Pattern "D"  
12345  
2468  
369  
48  
5
```

Console Output for Pattern C:

```
Test Pattern "C"  
12345  
1234  
123  
12  
1
```

Console Output for Pattern E:

```
Test Pattern "E"  
>*<  
>>*<<  
>>>*<<<  
>>>>*<<<<  
>>>>>*<<<<<
```

Console Output for Pattern F:

```
Test Pattern "F"
*****
*   *
*   *
*   *
*****
```

Console Output for Pattern G:

The final challenge for this assignment combines most of the elements we have used in class so far. You must write code that will allow the user to repeatedly enter an integer value, and then draw an empty box with sides made of * characters that have sides equal in length to the number the user enters. Finally, the program should end when the user enters a negative value. Sample console output would look like:

```
Enter the length of a side(or a negative number to exit:0
Enter the length of a side(or a negative number to exit:1
*
Enter the length of a side(or a negative number to exit:2
**
**
Enter the length of a side(or a negative number to exit:3
***
* *
***
Enter the length of a side(or a negative number to exit:5
*****
*   *
*   *
*   *
*****
Enter the length of a side(or a negative number to exit:10
*****
*       *
*       *
*       *
*       *
*       *
*       *
*       *
*       *
*       *
*****
Enter the length of a side(or a negative number to exit:-1
```