PURPOSE:

For this week we are going to get more practice with:

1. functions (particularly with parameters, chapter 3),
2. seeing and reading function complete documentation,
3. while-loops (chapter 5),

Much of the code for this assignment, especially the testing code, has already been written for you. Your task consists of mainly reading the function specs, and filling in the body and then comparing your output with the output shown below. This should be an easy and fun task, especially if you are comfortable with the **`for_loops.py`** program discussed in class: http://cs.franklin.edu/~esmail/COMP_480/SampleProgs/for_loops.py

Since we are using functions, you can work on this assignment in an incremental fashion, i.e., one part at a time. This too is one of the major advantages of using functions. I would suggest you work from top to bottom, i.e., in the order the functions are provided. Note that I am also using the "**`pass`**" keyword as a place holder for real code – otherwise Python would complain about the lack of code in the function body. When you add your code, you must delete the **`pass`** keyword.

TASKS:

You are going to take some functions similar to those in the sample program **`for_loops.py`** and make them work with parameters and using only **`while`**-loops.

Hint: Some of you may find it useful to get the functions working with for-loops first, but then change them to while loops. For full credit, you must use while-loops in your code.

You are writing two sets of functions. Each set (one made up of two methods, the other of three) are very similar to each other, so you really only writing two functions that you are then slightly modifying (and that are based on the **`for_loops.py`** program).

Note that you can run **`my_utils2.py`** on its own like a regular program. Later on we will learn how to "**`import`**" this code it into another Python program.

I will test your program by **`import`**ing it into my own copy of some test code. If you have followed and read the instructions carefully, it should not make a difference if I **`import`** my own version of **`my_utils2`** module or your module.

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[1] The number in () corresponds to the assignment number on the Franklin University web page and should be used when you submit your assignment via dropbox for proper credit.

You can download **my_utils2.py** from the class page; it contains detailed instructions/specifications.

http://cs.franklin.edu/~esmail/COMP_480/SampleProgs/my_utils2.py

DELIVERABLES

A single file, your finished version of:

my_utils2.py

No anonymous submissions please ;-)

As always, if there are any questions or concerns please let me know, I'm happy to help.

To help you, I have provided the output of running my_utils2 when it's run on its own. Sample output starts on the next page

```
==========================================
   ***  Output of test_utils2 function ***
==========================================


fancy banner first
-----------------------------------------------------------
    __o
  _`\<,_
 (*)/ (*)
YOUR NAME HERE
-----------------------------------------------------------

simple banner now:
-----------------------------------------------------------
YOUR NAME HERE
-----------------------------------------------------------
testing printStarLines()
A A A A A        @ @ @ @ @



testing printStarLines_Ln()
A A A A A

@ @ @ @ @


testing box(3)
x x x
x x x
x x x
x x x
x x x


testing box(15)
x x x x x x x x x x x x x x x
x x x x x x x x x x x x x x x
x x x x x x x x x x x x x x x
x x x x x x x x x x x x x x x
x x x x x x x x x x x x x x x


testing box2(5, 10)
------------------
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *


testing box2(5, 20)
------------------
* * * * * * * * * * * * * * * * * * * *
* * * * * * * * * * * * * * * * * * * *
```

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


testing box2(5, 5)
-------------------
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *


testing box2(6, 3)
-------------------
* * *
* * *
* * *
* * *
* * *
* * *


testing square with parameter 1
-------------------
.


testing square with parameter 3
-------------------
. . .
. . .
. . .


testing square with parameter 5
-------------------
. . . . .
. . . . .
. . . . .
. . . . .
. . . . .


testing square with parameter 7
-------------------
. . . . . . .
. . . . . . .
. . . . . . .
. . . . . . .
. . . . . . .
. . . . . . .
. . . . . . .

<enter> to exit
```