INTRODUCTION TO COMPUTER SCIENCE I

Fall 2014

LAB 5

Printing pretty 2-dimensional patterns

We have, on other problems, stumbled into situations where we need to use one loop inside another. However, here, we make it explicit and reveal the kinds of 2-dimensional patterns that such nested loops provide.

1 Three patterns

Create a new module (I recommend a name like patterns.py) that contains the following:

- A function `printSquare(n)` that prints a pattern like the following one (using, as an example, \( n = 5 \)):

```
+++++
+++++
+++++
+++++
+++++
```

- A function `printTriangle(n)` that prints a pattern like the following one (again, \( n = 5 \) as an example):

```
+++++
+++++
+++ 
++ 
+ 
```

- A function `printTree(n)` that prints the following patterns (e.g., \( n = 5 \)):

```
+  
+++ 
+++++ 
++++++++ 
++++++++++ 
```

|
• A function `main()` that obtains a value for \( n \) and then calls each of these three functions with that value.

• A call to `main()` to begin the sequence of function calls that make up this program.

2 Submitting your work

Go to the [CS submission system](#) to submit your code.

This assignment is due on Monday, Oct-27, 11:59 pm