Please create a Jupyter notebook that contains your solutions to the following problems.

- 1. Book chapter 5 ("conditionals and recursion"). Problem #2 part 1 only.
- 2. Book chapter 5 ("conditionals and recursion"). Problem #3 part 1 only.
- 3. Book chapter 6 ("fruitful functions"). Problem #2
- 4. Book chapter 6 ("fruitful functions"). Problem #5
- 5. Book chapter 10 ("lists"). Problem #2

Please separate each problem in your notebook with a markdown cell containing a heading (e.g., # Problem 2) such that it is clear what parts of the notebook correspond to which problems. Start each problem solution with a markdown cell that describes (briefly) how to call your function and how it works.

Include the code for your solutions, as well as cells that demonstrate that you tried the code out on some sample inputs.

Code that is not syntactically correct (i.e., python does not accept it when the cell is evaluated) will automatically receive a 50% point deduction for the corresponding problem. Problems that have no documentation will receive a 20% point deduction.

To turn in: add a folder entitled "assn5" to your class github repository and add your notebook there. Please make use of e-mail, Skype, or schedule a time to chat before or after class if you get stuck.