

## HW 8: Lists and Loops

Note: I use the terms program, algorithm and recipe interchangeably.

1. For the following recipe determine the total number of lines printed.

**Set num to 0**

**Repeat as long as num  $\leq$  10**

**Set num to num + 1**

**Show num**

2. How would the output be affected if the last two lines of the recipe were switched?
3. Determine the value in the variable **total** after each of the following sets of recipes
  - a. **Set total to 0**  
**Repeat by counting I from 1 to 5**  
**Set total to total + 1**
  - b. **Set total to 0**  
**Repeat by counting J from 1 to 5**  
**Set total to total + J**
  - c. **Set total to 20**  
**Repeat by counting C from 1 to 5**  
**Set total to total - C**
4. A programmer starts with a salary of \$50,000 and expects to receive a \$3,000 raise each year. Write a recipe to compute and print the programmer's salary for each of the first 10 years.
5. Using the ideas given in the lecture write a recipe to find the lowest quiz score in a list.
6. Write a recipe that uses a loop to print the items in the following list in reverse order (that is, last item first): [73, 68, 85, 93, 82].