CSCI 190: HW2
Due on Wednesday, February 23 at 8:00am (before the start of class.)

I. (60pts) Write a patch-setup procedure (and any additional useful procedures) that will create a terrain in which each patch has an altitude. Any patch with altitude < 0 is considered below sea-level, and should be colored a shade of blue (as water). Any patch of altitude 0 or above should be colored a shade of green (as land). In particular:
   1. The transitions from patch to patch should be relatively smooth.
   2. The lowest patch should have altitude altitude=-500 and the highest patch should have altitude altitude=499.
   4a. Altitudes below 0 should have a pcolor using shades of blue, with the lower the altitude the darker the shade.
   4b. Altitudes greater than or equal to 0 should have a pcolor using shades of green, with the lower the altitude the darker the shade.

II. (20pts) Create two alternate procedures to set up patches: Lakes-On-The-Land and Islands-In-The-Sea that create a world with the same four rules as above, except in the first case most of the world is land, with some small number of lakes (1-3) or most of the world is water with some small number (1-3) of shoals or islands.

III. (20pts)
   1. Create a button for each of the three setup procedures.
   2. Your program should be well-structured (making good use of procedure), and well-commented.
   3. Your program MUST be named as follows: YourName-HW2.nlogo.

Submission instructions will follow.

NOTE: Your solutions only needs to make use of NetLogo commands that have already been introduced in class on or before Day 6, including the ifelse command introduced on Day 6 plus other commands introduced by Day 5. It is based on the in-class lab assignment from Day 5.