SAMPLE ASSESSMENT First Programming Assessment CMP 230: Programming Methods I Lehman College- CUNY 24 September 2009

## **Directions:**

- Include your name (as a comment) in your solution to each problem.
- Submit each solution on Blackboard, under "Programming Assessment I" in Assignments.

Problem 1a	7	
Problem 1b	8	
Problem 2a	5	
Problem 2b	10	
Problem 3a	5	
Problem 3b	10	
Problem 3c	5	
Total	50	

- 1. (a) Create a new method for the bunny object (from the Animals gallery) called somersault (that is: bunny.somersault). Your new method should make the bunny jump up, do a full revolution forward, and land again on the ground.
  - (b) Add a parameter to that method that controls the number of somersaults (i.e. the number of rotations) and include several calls to it from my first method demonstrating it.
- 2. (a) Create a world with a road intersection in it.
  - (b) When the vehicle (of your choice) approaches the intersection, have it go straight 50% of the time, turn left 25% of the time, and turn right 25% of the time.
- 3. Create a world that has a rocket ship blasting off to space (see the Space gallery):
  - (a) Your world should have a rocket ship and a launch pad.
  - (b) Write a While statement that updates the value of a variable called **seconds** and displays it in a 3D text object called **countdown**. Start **seconds** at 10 and loop until it reaches 0
  - (c) After seconds has reached 0, launch the rocket into space.