CS151L Fall 2013
Week 1: Optional Programming Challenges

Programming Challenges	
	Draw geometric shapes: Have the students draw specific shapes such as a square, triangle, octagon, etc. This is a bit of a math exercise as well as a programming exercise. What angles should be used to draw each shape? Generally, it is harder to draw regular stars than regular polygons. A fun source for detailed geometry of the 5 pointed star is http://www.hyperflight.com/pentagon-construct.htm
	Draw a house: Not the simple, six line triangle on top of a square thing. We are talking door with doorknob, windows with mullions, porch, maybe some Doric columns, a dormer or two, clapboard siding (easier than adobe curves), cornices, and, of course, no house is complete without a turret. These are just a few architectural suggestions. Feel free to branch out and reproduce the rather boxy looking Hever Castle, El Castillo at Chichen Itza, or the CCTV Headquarters in Beijing. This exercise requires the student to truly visualize the Netlogo Coordinate system.
	 If you are part of a Supercomputing Challenge Team and your teacher is willing, you can work on that project!

Note: Either option 1 or option 2 could be in the “extra credit” button for lab 1.