Lab 9

Goals

The goals for this lab are:

1. Practice writing functions which take parameters and return a value

2. Practice using arrays

3. Practice controlling animation variables

Modality

This is a pair-programming lab - please form teams of two people and trade off typing in commands and giving instructions to they-who-are-typing.

Details

Tasks: This lab involves two tasks. The first is to complete a Processing sketch that is non-functional due to the fact that it is missing a function. Your task is to fill in the missing function. In particular, the final sketch should be an animation of balls bouncing. The balls should not only bounce off the walls, but off of one another. All the code is in place to handle all of the animations of the balls, except the *collide* function.

To complete this assignment, please follow these steps

- Write the *collide* function - see the code for function specifics

Your next task is to create a new sketch using the ball code as a starting example. Your second sketch should replace the balls with a more complex figure. You can consider using your creature from lab 2, or any of your parametric shapes, or even an image you read in. You will approximate

the 'shape' of your figure using a circle. Think about how you will model the object's center and its radius. We will continue to develop this sketch later this week including correcting the orientation (i.e. which direction your object is facing when moving), so make friends with this code.

To complete this assignment, please follow these steps

- Building off the 'bouncing ball' sketch, make a bouncing object sketch

- Replace the drawing of the balls with a more complex figure

- For collision detection, model your shape as a circle (that is use a bounding circle to model the extent and location of your shapes).

Demo:

In order to receive credit for this lab, you and your partner must demo your sketch to your instructor along with handing in the image and sketch via handin. Ask your instructor for details.