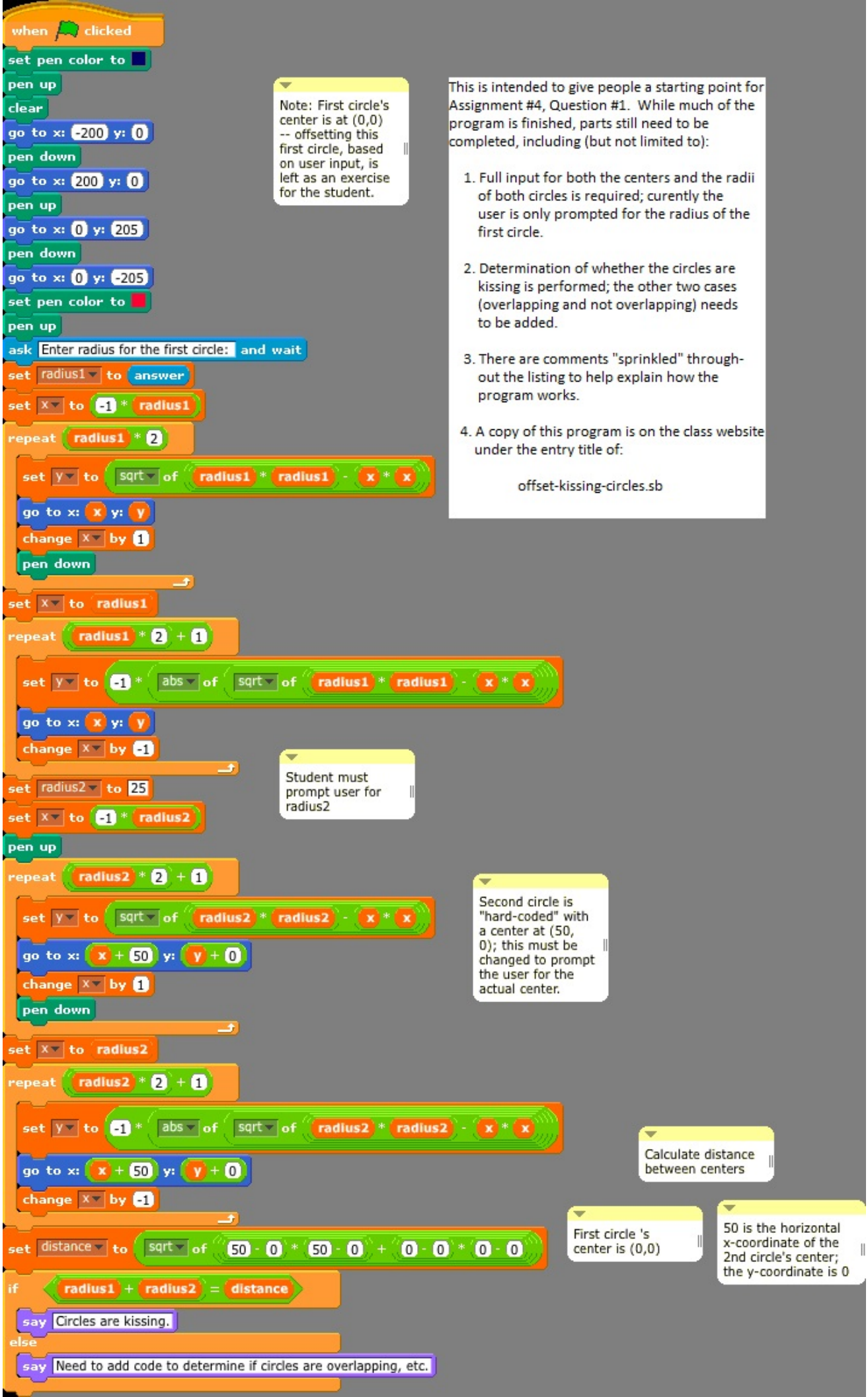
when clicked
set pen color to
pen up
clear
go to x: -200 y: 0
pen down
go to x: 200 y: 0
pen up
go to x: 0 y: 205
pen down
go to x: 0 y: -205
set pen color to
pen up
ask Enter radius for the first circle: and wait
set radius1 to answer
set x to -1 * radius1
repeat radius1 * 2
set y to sqrt of radius1 * radius1 - x * x
go to x: x y: y
change x by 1
pen down
set x to radius1
repeat radius1 * 2 + 1
set y to -1 * abs of sqrt of radius1 * radius1 - x * x
go to x: x y: y
change x by -1
set radius2 to 25
set x to -1 * radius2
pen up
repeat radius2 * 2 + 1
set y to sqrt of radius2 * radius2 - x * x
go to x: x + 50 y: y + 0
change x by 1
pen down
set x to radius2
repeat radius2 * 2 + 1
set y to -1 * abs of sqrt of radius2 * radius2 - x * x
go to x: x + 50 y: y + 0
change x by -1
set distance to sqrt of 50 - 0 * 50 - 0 + 0 - 0 * 0 - 0
if radius1 + radius2 = distance
say Circles are kissing.
else
say Need to add code to determine if circles are overlapping, etc.
Note: First circle's center is at (0,0) -- offsetting this first circle, based on user input, is left as an exercise for the student.
This is intended to give people a starting point for Assignment #4, Question #1. While much of the program is finished, parts still need to be completed, including (but not limited to):
1. Full input for both the centers and the radii of both circles is required; curently the user is only prompted for the radius of the first circle.
2. Determination of whether the circles are kissing is performed; the other two cases (overlapping and not overlapping) needs to be added.
3. There are comments "sprinkled" through-out the listing to help explain how the program works.
4. A copy of this program is on the class website under the entry title of:
offset-kissing-circles.sb
Student must prompt user for radius2
Second circle is "hard-coded" with a center at (50, 0); this must be changed to prompt the user for the actual center.
Calculate distance between centers
First circle 's center is (0,0)
50 is the horizontal x-coordinate of the 2nd circle's center; the y-coordinate is 0