fullName:_____ andrewID:_____ section:___

15-112 F25
Practice Quiz2

This is Practice Quiz2, part of Prep 5.

You are required to complete this practice quiz. However, unlike the previous practice quiz and exam, you are only strongly encouraged but not required to take this under quiz conditions (printed out, written by hand, only 30 minutes of time, no other resources, etc). You are free to complete this as you wish, and you do not have to submit your work. That said, you DO still have to carefully and completely watch the sample solution videos (with links in the prep writeup). And, once again, we strongly recommend that you complete this under quiz conditions to get the maximal benefit from it.

Do not use sets, dictionaries, recursion, or anything else disallowed in the original problem.

You are advised not to spend more than 30 minutes on this assessment.

Important notes for the Free Response questions:

- You may not use 'align' when drawing rectangles or ovals.

- Your solution must work for any sized canvas, so use app.width and app.height properly (and do not hardcode to 400x400), though you may assume the canvas is no smaller than 400x400.

- If you think the writeup does not fully specify some behavior, just make a reasonable assumption about it (do not ask for clarifications).
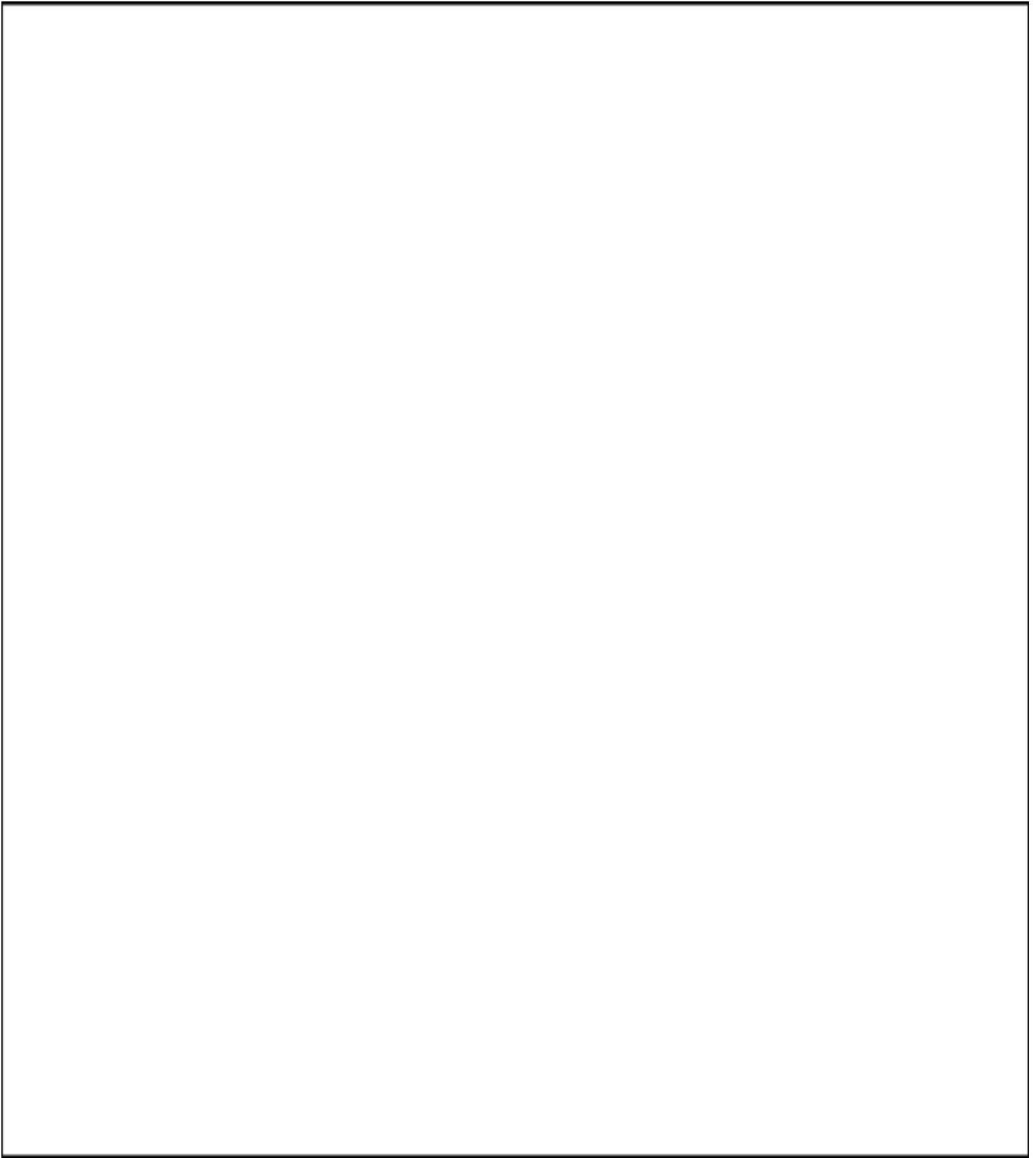
You do not have to write any imports, a main function, or call runApp.

FR1 [50pts]: animation1

Write an animation such that:

1. At first, a lightGreen dot and an orange square are drawn. Centered in the square is a counter, first set to 0. The dot is of radius 50, centered vertically and one-third of the app width horizontally. The square is 100x100, centered vertically and two-thirds of the app width horizontally.

2. Each time the mouse moves inside the dot, the dot color changes to cyan. If the mouse moves outside of the dot, the dot color changes back to lightGreen.

3. Each time the mouse is pressed inside the square, the square counter increases by 1. Whenever the square counter is odd, the square is drawn with a black border (otherwise it is drawn with no border).

4. Each time the user presses 'r', the app resets back to its original state (counter is 0, dot is lightGreen, square is orange with no border).

Write your answer here and on the following page:

FR2 [50pts]: animation2

Write an animation that matches the animation in this video:
https://youtube.com/shorts/frbKVMd3KNI

Notes:
- The animation runs forever (so play the video on a loop).
- In an actual quiz, the video would be played in a loop on the screen in the front of the lecture hall, so do not pause it during your practice quiz.
- Your animation need not match perfectly, but must be reasonably close.
  - Make reasonable assumptions about colors, sizes, locations, speeds, etc.
  - You may assume the app runs at 30 steps per second.
- Be sure to draw the rects at the bottom of the canvas!

Write your answer here and on the following page: