Intro Programming Term 1 Review

- Here is the code to check to see if a slider is being clicked, and the map function that converts the slider's knob's x position into a thickness value. Give an ellipse and line function that would draw the corresponding slider. Assume the following:

  a. stroke, strokeWeight, and fill are already set correctly
  b. the code that checks to see if you are clicking on the knob checks exactly within the boundary of the circle for the mouse.
  c. All variables have been declared as floats in the appropriate place.

```
if (dist(mouseX, mouseY, sliderX, 500) < 25) {
  sliderX = mouseX
  if (sliderX < 100) sliderX = 100;
  if (sliderX > 300) sliderX = 300;
}

thickness = map (sliderX, 100, 300, 1, 20);

//knob (ellipse)
```

_____

```
//track (line)
```

_____

- Map function practice! Let's write some map functions to calculate the mark you got on a test in a percentage format. Always assume:

  a. The number of questions you got on the test is stored in an int variable called 'mark'
  b. The resulting percentage should be calculated using the map function and stored in a float variable called 'percent'

c. The variables have already been properly declared earlier in the program.

- A test out of 20

- A test out of 73

- A test out of 10, but there is a bonus question worth 1 mark.

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3. Write the condition for the if statement for checking to see if you are clicking the following circle buttons:

a. ellipse(50, 100, 60, 60);

if (_____)

b. ellipse(300, 600, 100, 100);

if (_____)

c. ellipse(x, y, d, d);

if (_____)

4. Write the condition for the if statement for checking to see if you are clicking on the following rectangular buttons:

a. rect(10, 50, 100, 200);

if (_____)

b. rect(100, 500, 30, 80);

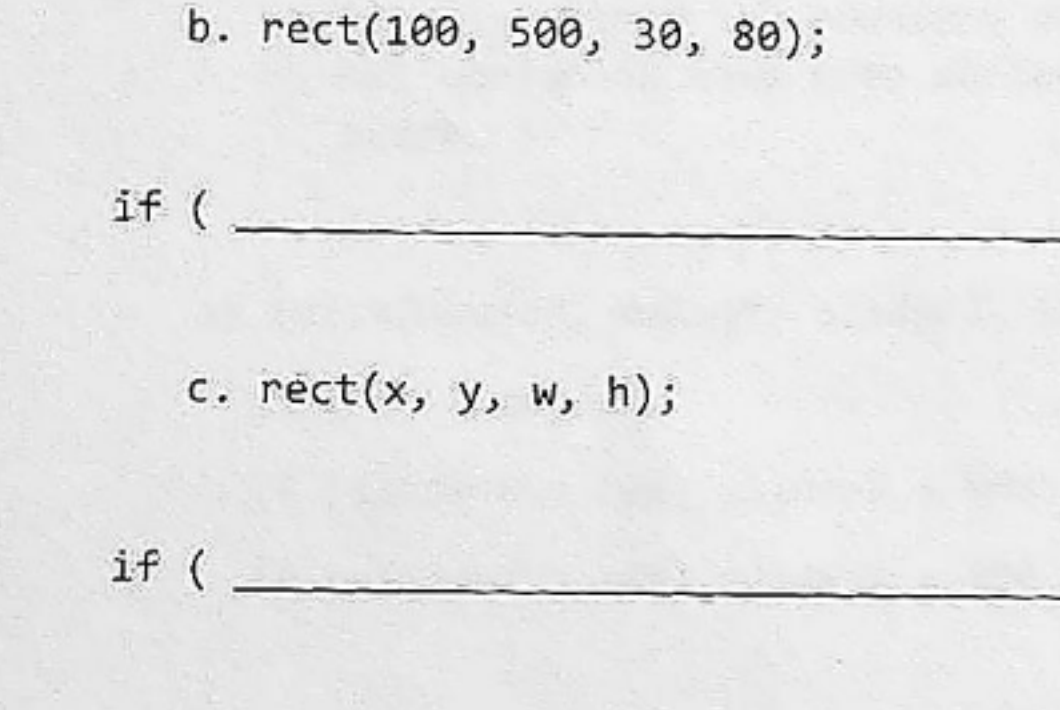
if (_____)

c. rect(x, y, w, h);

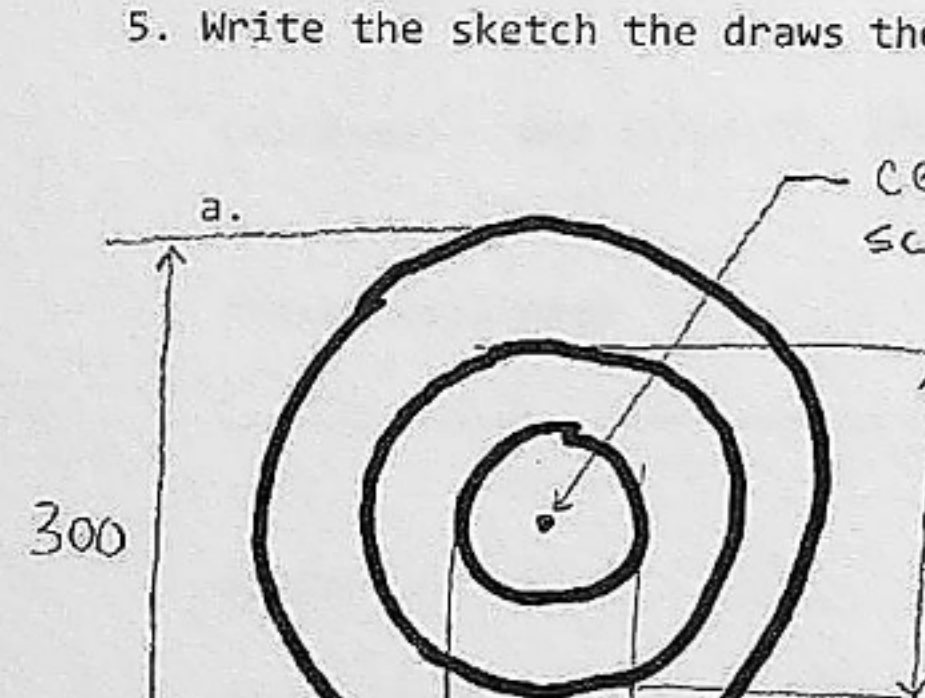
if (_____)

5. Write the sketch the draws the following shapes:

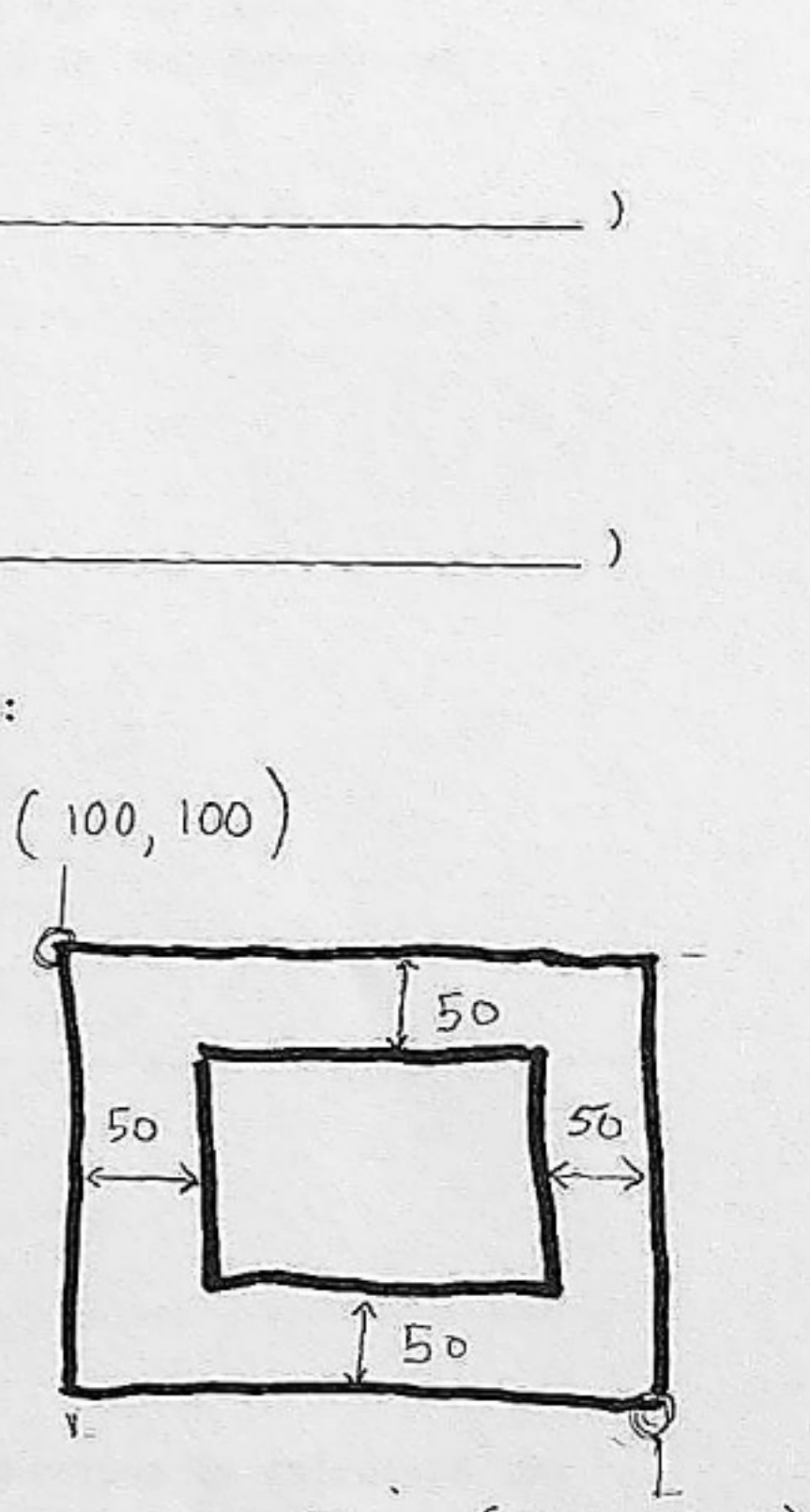
a.



b.



c.



d.