Your Name:

Class practice: Week of October 9, 2020

Due by midnight on your class day.

**Question 1.** Consider the following program. Draw the function stack at the indicated location.

```c
int add(int a, int b) {
    return a + b;
}

void setup() {
    int x = 10;
    int value = add(x, 50);
    // draw stack here
}
```

**Question 2.** Consider the following program. Draw the function stack at the indicated location.

```c
int numCircles = 3;

void setup() {
    size(500, 500);
}

doow draw() {
    for (int i = 0; i < numCircles; i++) {
        drawDot(i*100, i*200);
    }
}

void drawDot(float x, float y) {
    ellipse(x, y, 50, 50);
}
```

**Question 3.** Watch out! Local variables “hide” (or “replace”) global ones.

```c
float diameter = 10.0;
void draw() {
    float diameter = 100.0;
    ellipse(10, 10, diameter, diameter);
}
```
Question 4. Watch out! Parameters (e.g. arguments) represent *different* variables.

```java
void drawBox(float x, float y) {
    rect(x, y, 10, 50);
}

void draw() {
    float x = 20;
    float y = 300;
    drawBox(x, y);
}
```

Question 5. Watch out! Values for int, boolean, float, String, and color types are *copied* to the function. This means that changes to a parameter inside a function disappear after the function completes.

```java
color c = #FF0000;

t void drawBox(float x, float y) {
    x += 100;
    y = 25;
    rect(x, y, 50, 50);
    println("drawBox: ", x, y);
}

t void draw() {
    float x = 20;
    float y = 300;
    drawBox(x, y);
    println("draw: ", x, y);
}