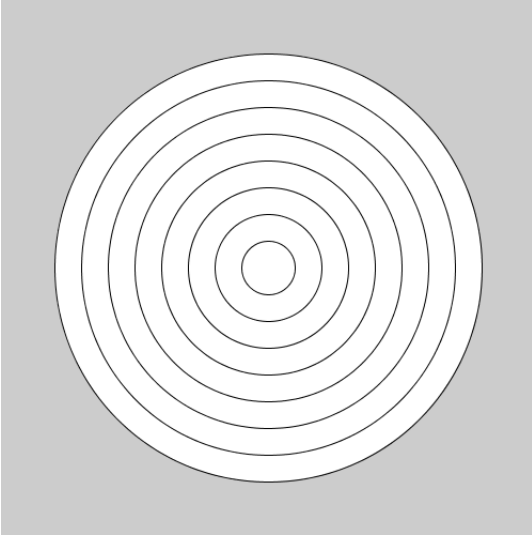


Your Name:

Lab#10: Week of December 1,2020

Due by midnight on December 4.

Question 1. Drawing a bull's eye.



Question 2. The following code uses an iterative function to draw the picture above. Write a recursive function to produce the same image.

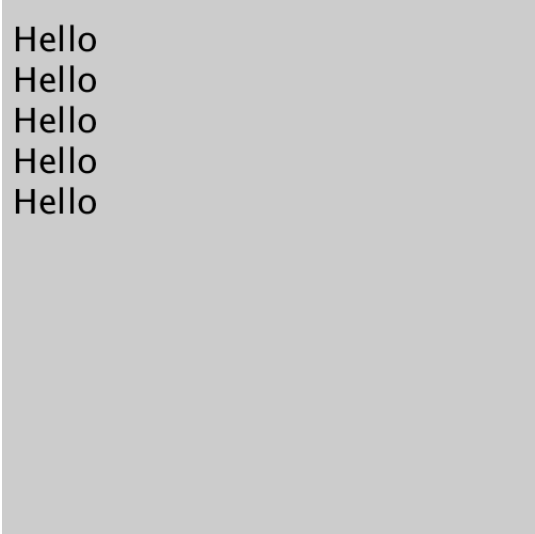
```
// Iterative function
void drawBullseye(float radius) {
    for (float r = radius; r > 5; r -= 50) {
        ellipse(width * 0.5, width * 0.5, r, r);
    }
}

// TODO: Recursive function
void drawBullsEyeR(float r) {

}

void setup() {
    size(500, 500);
    drawBullseye(400);
}
```

Question 3. The following code uses an iterative function to draw the word "hello" N times. Write a recursive function to produce the same image.



Hello
Hello
Hello
Hello
Hello

```
// Iterative function
void drawMessage(String phrase, float x, float y, int N) {

    float th = textAscent() + textDescent();
    for (float i = 0; i < N; i++) {
        text(phrase, x, y + th);
        y += th;
    }
}

// TODO: Recursive function
void drawMessageR(String phrase, float x, float y, int N) {

}

void setup() {
    size(500, 500);
    textSize(32);
    fill(0);
    drawMessage("Hello", 10, 10, 5);
}
```

Question 4. The following code uses an iterative function to countdown from N by printing to the console. Write a recursive function to produce the same output.

```
// Iterative function
void countdown(int n) {
    for (int i = n; i > 0; i--) {
        println(i);
    }
    println("Blast off!");
}

// TODO: Recursive function
void countdownR(int n) {
}

void setup() {
    countdown(10);
}
```