

6.914 Homework 0

Assigned 1/8 - due 1/10 by 3pm to mish@mit.edu

Please write 3 out of the following 5 programs. Make sure to comment your code so it's readable. Copy and paste each of your solutions into your email, and make sure to tell me which questions you're answering.

Also, please send a program of any length that demonstrates the most interesting concept (or combination of concepts) that you think we learned.

- 1) Draw a circle that starts at the top right and moves toward the bottom left.
- 2) Create a line of squares in the six colors of the rainbow (red through purple) on a black background.
- 3) Take the following code, which uses `beginShape(TRIANGLES)`, and remove the correct vertices to generate the same shape, starting with `beginShape(TRIANGLE_FAN)` instead. (Hint: you will only need one vertex out of most of the three-vertex sets.)

```
beginShape ( TRIANGLES );
```

```
    vertex(200, 200);  
    vertex(200, 100);  
    vertex(250, 150);
```

```
    vertex(250, 150);  
    vertex(200, 200);  
    vertex(350, 200);
```

```
    vertex(350, 200);  
    vertex(200, 200);  
    vertex(250, 250);
```

```
    vertex(200, 300);  
    vertex(200, 200);  
    vertex(250, 250);
```

```
    vertex(200, 200);  
    vertex(200, 300);  
    vertex(150, 250);
```

```
    vertex(50, 200);  
    vertex(200, 200);  
    vertex(150, 250);
```

```
    vertex(200, 200);  
    vertex(150, 150);  
    vertex(50, 200);
```

```
    vertex(150, 150);  
    vertex(200, 100);  
    vertex(200, 200);
```

```
endShape ( CLOSE );
```

4) Write a program that draws a square, then “collapses” it into its lower-right hand corner. (Optional: can do you this using only one variable?)

5) Create two semi-opaque ellipses that move across the screen at different rates, so that when they overlap, one can be partially seen through the other. (Hint: you can move shapes horizontally at different rates by increasing their x -coordinate-determining variables at different rates.)