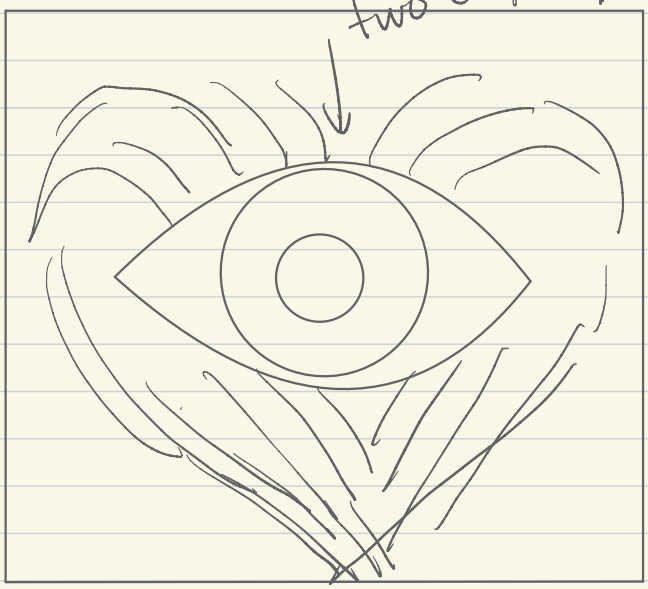
random.choice

Pseudocode PC04 Creative Art



★ an eye in the center that randomly selects from palettes to color

★ parametric heart pattern in the background! black bk (0,0,0) gray heart, Palette for eye values

$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$

import math, turtle, random

set up panel (600 x 600)
import colors RGB (turtle.colormode(255))
set background black (0,0,0)

Parametric Heart ★ mention reference from Dr. Z's code

- scale up pattern (10)
- set variable to contain angle range (0,360)
- use the following equations (translate to math library) ★ add angle = math.radians(angle)

$x(t) = \frac{1}{16}\sin(2t)(1+\cos(80t))$

$y(t) = -\frac{1}{2}(\frac{2}{\sqrt{5}}-1)^2 + \frac{1}{7}\sin(2t)(\sin(80t))^3$

- scale x and y using earlier variable scale
- put the above into a for loop w/ angle variable so it steps through each degree

Eye

create two ellipse, pick up pen to stop ellipse
create outer circle
create inner circle
to color, begin fill
fill color random.choice

tuples w/ different palettes, placed into a list

want in for loop w/ range(2)
begin fill
random.choice(list) set as variable
fill w/ random choice variable
draw circle

eye will change color