

Name:	Date:	Period:
-------	-------	---------

Lab08: Chaos Game

- Use PIL to create a 600×600 image in PNG format.
- Initialize three points P_1 , P_2 , and P_3 .

$$P_1 = (x_1, y_1) = (0.5, 0.1)$$

$$P_2 = (x_2, y_2) = (0.1, 0.9)$$

$$P_3 = (x_3, y_3) = (0.9, 0.9)$$

- Initialize another point $P = (x, y)$ at random, then repeat:
 - Pick one of P_1 , P_2 , or P_3 at random. These points never move.
 - Move P halfway from its current position to the randomly picked point.
 - Translate P from unit coordinates (x, y) into pixel coordinates (xp, yp) .
 - Use `img.putpixel((xp,yp), (red,green,blue))` to turn “on” point P .
- Use `red,green,blue=img.getpixel((xp,yp))` to determine if each pixel drawn is really a “new” pixel or not. Plot the total number of unique pixels drawn over time.

Official Use Only

Header:	Name	Correct Date	Program Description
Style:	Comments	Variable Names	Modular
Data Structures:	Obvious	General	Lean
Algorithm:	Clear	Correct	Efficient
Scoring:	Raw _____	Late _____	Total _____