CECS 229 – Lab 2/HW4

1. Given S = {2+2j,3+2j,1.75+1j,2+1j,2.25+1j,2.5+1j,2.75+1j,3+1j,3.25+1j} and T = {(e**(2*pi*1j/20))**x for x in range(20)}, use the function def transform(L,a,b): return{a*x+b for x in L} to produce the following image.
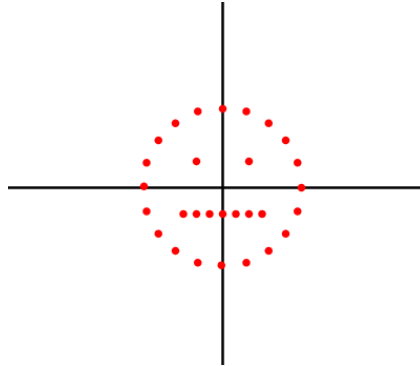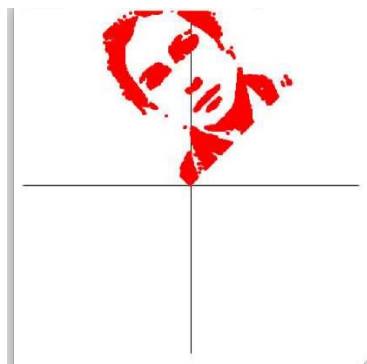

2. Complete task 1.4.10

   Expected result:
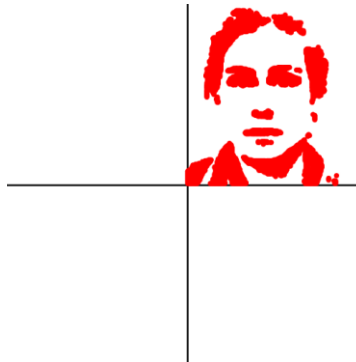
3. Complete task 1.4.19

   Expected result:

Use the First Rule of Exponentiation (Section 1.4.9) to express the product of two exponentials as a single exponential.

For example, $e^{(\pi/4)i}e^{(\pi/4)i} = e^{(\pi/2)i}$.

a. $e^{1i}e^{2i}$

b. $e^{(\pi/4)i}\,e^{(2\pi/3)i}$

c. $e^{-(\pi/4)i}\,e^{(2\pi/3)i}$