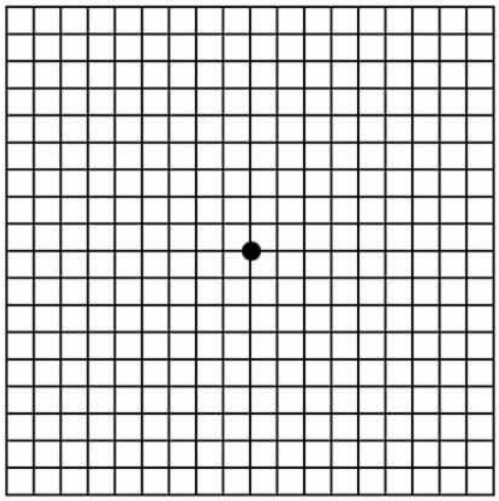
Name: _____ Geometry
Date: _____ Unit 5
Class: _____ EC

To be eligible to receive extra credit on the unit test you must have a score below 75. To receive extra credit you must score an 80% or higher on this assignment (anything lower results in no extra credit). If you earn extra credit is calculated in the following manner: Old Test Score + (75 – Old Test Score)(2/3) = New Test Score. This assignment will not be accepted late for any reason other than missing the day of school it is due in which case it must be turned in the next day you are in school even if you do not have class.

1) [3] If $\overline{PQ}$ is transformed using the composition r_{y-axis} o $T_{-2,4}$ what its image if P(-2, -4) and Q(2, 1)



2) [2] If A(4, 8) is transformed using the dilation that maps (100, 20) to (50, 10) what its image?

3) [2] If you used (x, y) → (x – 3, y + 5) to arrive at an image of (-3, 0) what was the pre-image?

4) [2] If you perform a 270° clockwise rotation of $\overline{PQ}$ with P(-2, -3) and Q (-4, -6) what is its image?

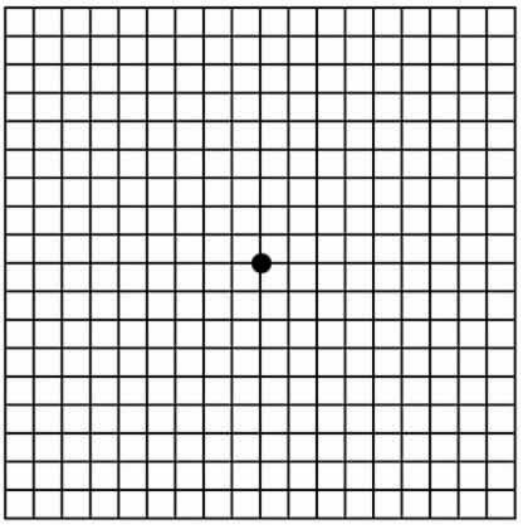
5) [3] Using $D_{\frac{1}{3}}$ centered at (-1, 2) find the preimage of a triangle that has points A(2, 3), B(-2, 5) and C(-1, -2).

6) [4] If $\triangle$ ABC has A(0, 4), B(2, 6), and C(4, 1) draw $\triangle$ ABC and the following:

a) the image of $\triangle$ ABC after R_{90°

b) the image of $\triangle$ A'B'C' after $T_{1,4}$

c) the image of $\triangle$ A''B''C'' after $r_{y=x}$



7) [4] If the following composition of transformations is performed on an octagon that has a perimeter of $17cm^2$ what would the perimeter of the image be (justify your answer)? $D_3 \circ R_{90^\circ} \circ r_{y=x} \circ D_{\frac{1}{2}}$

8) [3] Describe a single transformation that would result in the same image of a figure as the following composition of transformations $r_{x-axis} \circ r_{y-axis}$.

9) [3] Would the following composition of transformations result in a direct or indirect image (justify your answer)? $r_{y-axis} \circ T_{-2,-3} \circ r_{x=2}$

10) [3] Find the image of $\triangle QTU$ with Q (-2, -4), T (-6, -5), and U (-4, 0) using $r_{(-5,-2)}$.