

MATH 106

Visual Mathematics

Please post to Canvas by 8pm Wednesday.

Add spaces as needed.

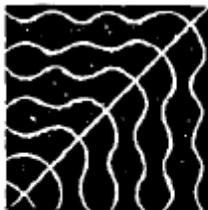
1.) Fractals

i. View <https://vimeo.com/287778358>

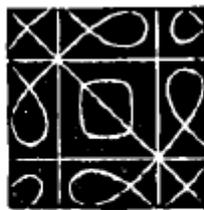
ii. Take a screenshot of your favorite pattern and paste it here:

iii. Analyze the self-similarities represented in it. In other words, describe the self-similarities and why this is a fractal. What makes it both mathematical and artistic?

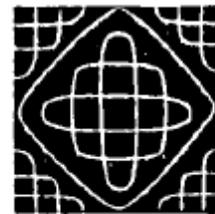
2.) Patterns on the Chladni Plate.



(a)



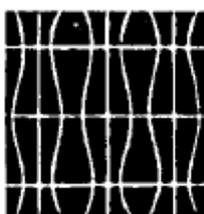
(b)



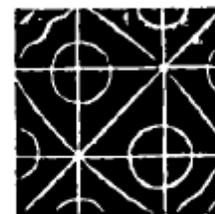
(c)



(d)



(e)



(f)

The picture above shows a variety of Chladni plate patterns like the ones you saw in class. For each of the six panels, draw all lines of symmetry. On word, go to “insert shapes” and choose

the line segment. You will probably need to repeat this process for each line of symmetry you draw. You may come up with other ingenious ways to draw on the document. Go for it!

3.) Find all alphabet letters (including lower case and capital) with

a.) Reflective symmetry. List the letters and the number of lines of symmetry in each.

Example: A: one line of symmetry

o Rotational symmetry. List the letters and the degree of rotation of symmetry of each.

Example: I: 180°