

Function Art Project

Objective: To create a piece of art using functions.

Tools Needed: Large sheet of graph paper, graphing calculator or another graphing tool, straight edge, pencil, colors (pencils, markers, etc), and imagination.

Your job is to create a piece of art for the wall. However, I am a math teacher so I don't just want regular works of art. Your art must be made by graphing functions on a coordinate plane. I don't just want basic shapes, I want pictures! That means that there are some requirements you need to follow.

- You must use at least 4 different functions from the following list: Linear, quadratic, absolute value, square root, cube root, exponential, greatest integer, or inverse variation.
- It must be in color.
- You must have at least 8 equations to form your picture. (No more than 20)
- It must be at least 11" by 17". (HINT - This is the size of two sheets of graph paper placed side-by-side.)
- You must have a list of equations you used to create your picture. They should not be on the picture, but turned in separately. Any equations you only use part of, you must include the limits. You must use a process to identify the equations and which part of the artwork it goes with.
- Your picture must include the coordinate plane. The coordinate plane should be labeled.
- You cannot have any lines or marks on your picture (other than the coordinate plane) that are not written as equations.

You can use www.desmos.com which is an online graphing program to help you figure out how to do your picture. It will let you move your functions around using your transformations until you have your picture just the way you want it. Then you will have your list of functions and you can copy it onto your large graph paper and color it in so it is ready to hang on the wall.