

Activity 3: Making Transformations STICK!

Goal: Demonstrate your understanding of function graphs and transformations to create a sticker!

In this activity, you will:

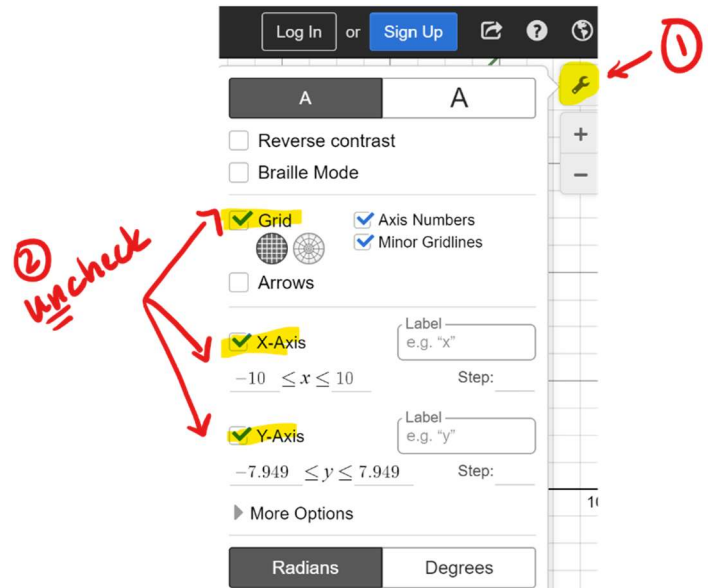
- create functions that have specific transformations.
- graph the functions.
- use your graphs to create an artistic 2D design.
- submit the design for printing as a sticker.

Step 1

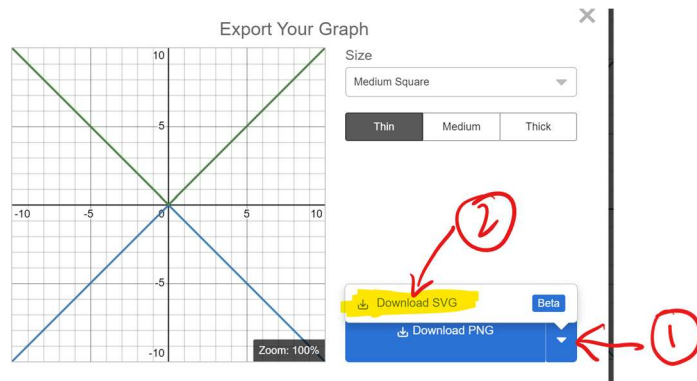
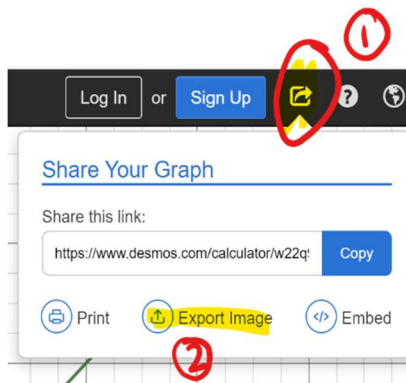
- Use Desmos to graph functions that have transformations. Experiment with different functions (polynomial, radical, rational, etc.) and transformations.
- Choose at least three graphs to work with in Step 2.

Step 2

- Remove the background and gridlines from your graphs from Step 1.



- Export each graph (or groups of graphs) as an SVG file.



Step 3

- Import the SVG file into 2D design software, such as Cuttle <https://cuttle.xyz/>

*Note: SVG exports from GeoGebra or Desmos may include 2 parts: the graph AND a rectangular artboard. In the 2D design software, you will need to **ungroup** the SVG file and delete the blank, rectangular artboard.*

- Draw a rectangle on your screen to create the outline of your design. Create your design (in the steps below) inside this rectangle.
- Use the 2D design software -- and your creativity! -- to design artistic arrangements of the SVG file(s). Play around with colors, patterns, text, or other features. For example, you could:
 - Make multiple copies and rotate them.
 - Change colors or thickness of the lines.
 - Resize the graphs.
- When finished, export your creation as a PNG file and send the file to your teacher.

Step 4

- Write your artist statement, which helps an audience understand your work of art. An artist statement should describe what you created and why you made it. Your artist statement should also:
 - describe each transformation: how is each parent function being transformed?
 - explain why you selected each equation for your design.
 - provide a general description of how you turned SVG graphs into your final design (Did you rotate the graphs? Alter the color? Add special effects?)