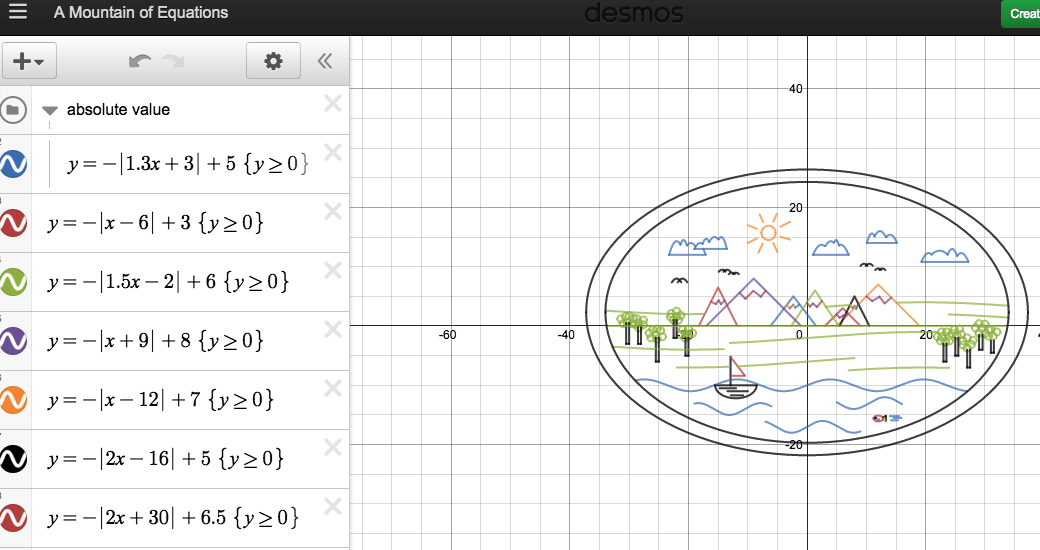
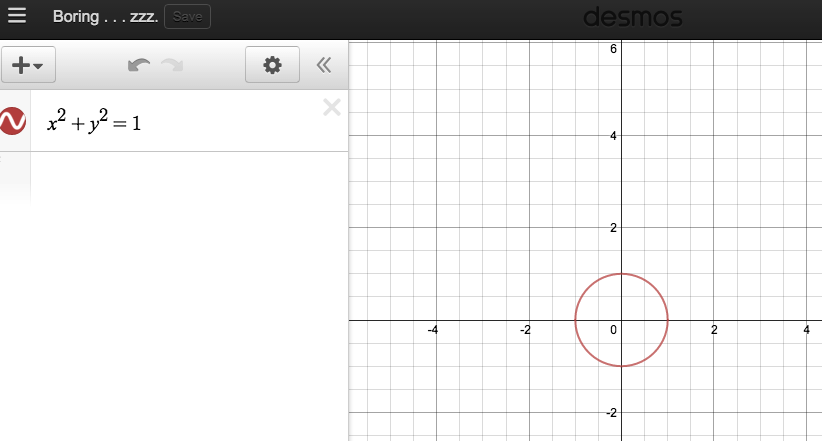
**Algebra 2 with Trigonometry**

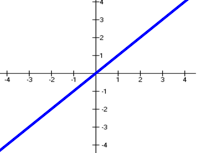
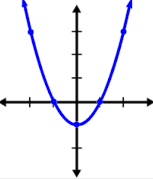
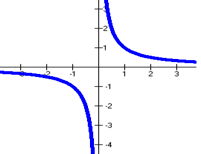
**In Class Group Project**

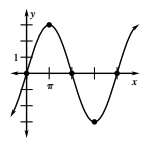
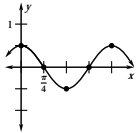
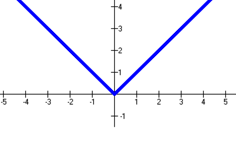
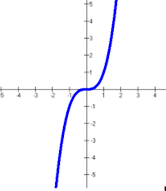
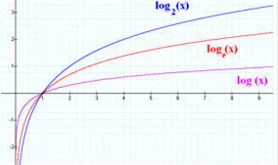
In small cooperative learning groups (2 students), your task is to use <http://www.desmos.com> to creatively and neatly design your own picture!

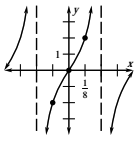
**Turn this… Into this!!!**

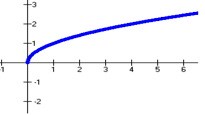
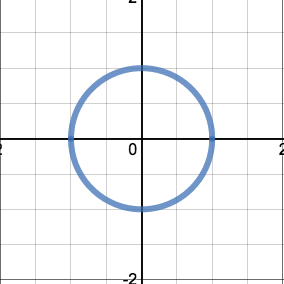


**To complete the following, you must utilize the families of functions we have learned in this course:**

Linear:  Quadratic:  Exponential Growth/Decay:  Rational: 

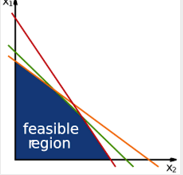
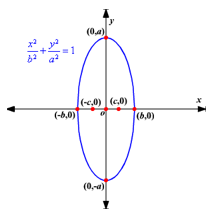
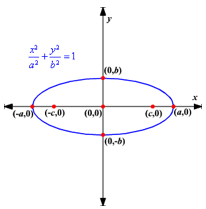
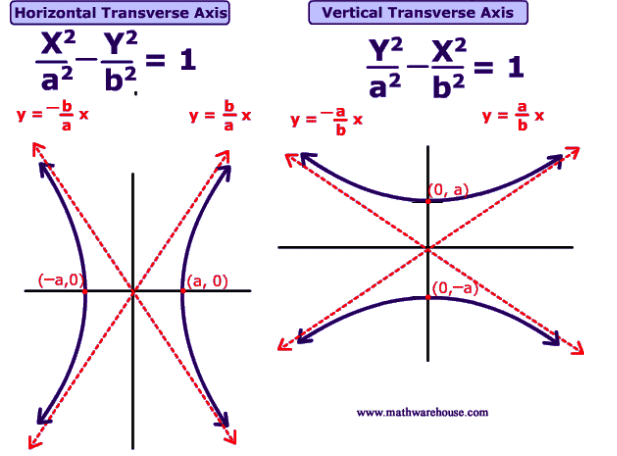
Absolute Value:  Cubic: Logarithmic: Trigonometric:



Radical:  Circles:  Ellipses: Hyperbolas:

*\*\*\*\*By the way . . . Did you know that you could color in your picture? (Hint: Inequalities and shading*

*)\*\*\*\**



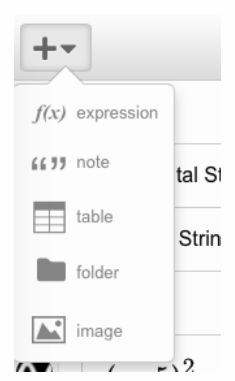
**Directions:**

**STEP 1: Create a Desmos account (everyone needs an account but only one person needs to submit this portion of the project)**

You can either sign in with your HPS Google Account or under your own e-mail address and password. You each need an account so you can save and share your work.

**STEP 2:** Create a detailed picture with all of the functions outlined above. *Organize your work NEATLY by the different functions in SEPARATE folders.*

**STEP 3:** When you’re done, get the link to your work. This can be done with the share button in the top right corner of the website, *if you’re logged in*. Paste the link into the form on coughlinhhs.weebly.com.

**Some quick how-tos:**

**How do I turn graphs on and off?**

Click the graph icon to turn graphs on or off.

Note that if you click and hold a graph icon, it will give you color, transparency, and style options. 

**How do I make my lines thicker?**

Click on the  tool on the top right and select “Projector Mode”

**How do I create domain restrictions?**

After typing in the equation for the graph, put in brackets { } and write a compound inequality.

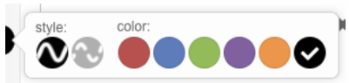


**How do I make folders to group the functions?**

Press the big + sign in the top left corner below the black bar. You’ll get a menu like the one above. “Folder” is the fourth option. You can then drag your equations into folders.



**How do I change colors?**

Click the gear icon at the top of the equations list:

From there, if you click on a graph icon it will give both color and style options: 

**How do I have Desmos find the line of fit for me?**

Type in the kind of function you are trying to create. For example, type in and when it says  click on “all” and in another line type to create a vertex point that you can drag.

**How do I share this project with people in my group?**

Click on the icon and send an email directly to the person or copy the link into an email. 

*This Project is DUE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Names:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**RUBRIC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Functions:* | *How many do we need?* | *How many do we have?* | *Were we neat?* | *Were we creative?* |
| *Linear* | 3 |  | Do our functions meet nicely?  Did we include any shading? | Is our picture detailed?  Did we do something other than a house? |
| *Quadratic* | 3 |  |
| *Exponential* | 3 |  |
| *Rational* | 3 |  |
| *Absolute Value* | 3 |  |
| *Cubic* | 3 |  |
| *Trigonometric* | 3 |  |
| *Radical* | 3 |  |
| *Circles* | 3 |  |
| *Ellipses* | 3 |  |
| *Hyperbolas* | 3 |  |

TOTAL:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Names:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| *Trigonometric* | 3 |  |
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| *Circles* | 3 |  |
| *Ellipses* | 3 |  |
| *Hyperbolas* | 3 |  |

TOTAL:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_