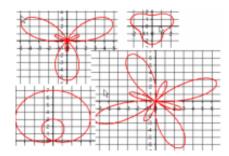
POLAR GRAPH ACTIVITY:



DUE:

<u>OJBECTIVE</u>: Create your own, original design using polar graphs to show your knowledge of different type of polar graphs.

[15 points]

- Make a creative picture composed of several polar curves on the same grid.
- Include at least three of the basic polar graphs we have discussed in class (spiral, three types of circles, rose curve, limaçon, cardioid or lemniscate). Other types of curves may be used as well. (You might like the following: lituus or cochleoids,
- Pictures can be a recognizable object/scene OR a geometric design or abstraction.
- **Title** your picture and include: **equations**, **window** and the **graph** itself.
- If you changed the parameters of any of your equations (remember the default is $0 \le \theta \le 2\pi$ and $\theta step = \frac{\pi}{24}$), you need to indicate how these were changed.
- For each equation that is one of the basic types discussed in class, you have to identify it by name.
- I should be able to reproduce your graph with the given information.
- Graph should fit nicely on a 8 ½" X 11" piece of paper.
- Use your TI-Nspire software OR <u>www.desmos.com</u>. Please be aware that you must create an account to print off anything you create at Desmos.
- Print off in color OR print and add color.
- Put your name/section on the back of your masterpiece.

Other Polar Resources you might find interesting:

http://www.mathdemos.org/mathdemos/family_of_functions/polar_gallery.html

Polar "Masterpiece." [15 points]

- Original!
- Compiled of several polar graphs
- Includes at least three required graphs which are also named
- Creative title / graph
- Equations and window listed
- · Parameter changes noted
- At least 6" X 6"
- Color exists and adds to design
- Name/section on BACK
- Creative! Thoughtful design that clearly took time to execute

GENERAL COMMENTS: