

Trigonometry Design Project (50 Points)

You will be creating an original design using the graphs of trigonometric functions with variations in amplitude, period, phase shift, and vertical shift. You must have a minimum of five equations and a maximum of ten equations.

Supplies Needed: Graphing Calculator
GraphLink – available in class or the library
Markers
Computer disk/Jump Drive to save picture.

Requirements: A minimum of five equations that meet the following criteria

- At least two equations must be cosine
- At least two equations must be sine
- At least one reflection over the midline
- At least two must have a change in period
- At least two must have a phase shift.
- At least two must have a vertical shift.
- Must use radians and use a trig viewing window (ZOOM: 7)

Directions:

- You must graph your equations in radians.
- You must use a trig viewing window, no standard window.

`ZOOM` `7:ZTrig` , then adjust as necessary.

- Once you have decided on your equations, you must turn your axes off.

`2nd` `FORMAT` `AxesOff` `Enter` `2nd` `QUIT`

- Follow the directions for linking your calculator to the computer to copy your picture, equations, and viewing window to Microsoft Word. Be sure to place a **border** around all of the above before you press copy.
- If the computer lab is unavailable, you will link your calculator to the computer in class and I will save your picture, your equations, and graphing window on your disk in Word. The last day I will save these for you is _____.
- In Word, change your margins to .5 and type the following heading:
Your Name
Period
Date
- Position and size the box. Your picture should take up a minimum of half the page. When you are satisfied with the position of your picture, print the page on card stock.
- On a separate page, print the equations and your viewing window (1 page).
- Completely (no white showing) color your design using your computer or with markers (no colored pencils or crayons).

Due Date: No later than
Late projects will lose credit at 10% (5 pts per day)