



Portfolio Project

Integrated Math II, BCHS, Beeman

Name: _____

“Good, better, best – never let it rest, until your good is better, and your better is best!”
– Dr. Viji K. Sundar, CSU Stanislaus

The portfolio project will contribute 20% to your grade for this class. It consists of six pieces of work that allow you to show off what you have learned and done:

- 1) Your very best, most perfected, assigned GeoGebra construction
 - a. Your construction must look good – it will be obvious if you’ve spent time on it: Labels, correct construction steps, clean, neat, etc.
 - b. Choose from: Perpendicular bisector, Square [tool], Daisy [tool], Hexagon [tool], or the take home test work from Unit 1. You should already have these done in GeoGebra – you should just raise them to the best level
- 2) A geometric construction of your own creation in GeoGebra
 - a. Your construction may be mathematical, artistic, or creative. In any case, it must show off *mathematical* ideas!
 - b. Your construction must include text boxes that explain the mathematics that is being highlighted
- 3) A proof for a Geometric Theorem
 - a. Your proof must include all 6 parts of a good proof
 - b. The diagram must be correctly constructed in GeoGebra
 - c. Your proof can be of any style (Paragraph, 2-column, Flow, or Visual) as long as it is rigorous
 - d. Choose from: a relationship between the sides, angles, or diagonals of one of these quadrilaterals {parallelogram, rectangle, rhombus, trapezoid, kite}
 - e. Do not prove a definition! For example, do not prove that the sides of a square are all congruent. Instead, you could prove some fact about the diagonals of a square, because they aren’t part of the definition of a square
- 4) A sample of your notes [added in to your GeoGebra book]
 - a. A scan of one page of notes you have taken for this class. Study questions and summary for the notes should be evident.
 - b. The notes must be accompanied by a paragraph explaining your choice.
 - c. Be sure that your work is *readable* in the portfolio!

- 5) A narrated solution of a problem you were proud of solving
 - a. Choose a problem that you had to solve for this class.
 - b. Create a video of yourself solving it (screencast-o-matic.com, iMovie, webcam, etc.), and upload the video to your GeoGebra book
 - c. Your video must include narration of the steps you used
 - d. You must be visible in at least part of the solution
 - e. Choose your problem wisely! Too simple, and you won't impress the audience; too hard, and you won't succeed.

- 6) A piece of reflective writing, summarizing your experience in this class. The writing should be a chapter in your Geogebra book. Address each of these prompts in your reflection:
 - i. What experience will you remember most from this class?
 - ii. What concept do you feel you understand the best? Give an example.
 - iii. What has been your biggest struggle in trying to be successful in Math?
 - iv. What area of Mathematics are you still curious about?

How / Where / When

- There will be 3 days to work on this project in class {Wed.. 11/30, Fri. 12/9, and Mon. 12/12}. You are responsible for finding additional time (if needed) to complete the project.
- Create your portfolio in GeoGebra book. [File menu → New → Create Book] Name the book with your name.
- When your portfolio is complete, share the link to it on classroom.google.com.
- I will not accept portfolios before 12/9 or after 12/13.
- On the finals day, you will present your portfolio in class, using the smart board. Your final portfolio score will be based on the GeoGebra file (80%) and your presentation (20%). The only requirement for the presentation is that you show off each item in your portfolio, and explain why you selected each item.