Name: _____ Class: _____
Early Due Date: Dec. 1st (A day) and 2nd (B day) Due Date: Dec. 3rd (A day) and 4th (B day)

3rd 6 Weeks Project: Teaching Complex Numbers

To assist you in earning mastery for complex numbers, you will be "teaching" complex numbers and their uses for solving equations. Imagine that you are going to be teaching this lesson to a group of 5th graders. You will use an app/software program from the list below to present your lesson. You can present this in a children's book format, use presentation software, or make a video. You will turn this project in electronically through Google Classroom. Make sure that you are doing original work. Do not take something from the internet and claim it as your own!

Your presentation **MUST** include:

- The definition of an imaginary number in your own words
- The definition of a complex number in your own words
- An example of a complex number
- Definition of conjugate in your own words
- Example of a conjugate
- Examples of simplifying complex numbers by (all of them):
    - adding
    - subtracting
    - multiplying
    - dividing using a conjugate
- Definition of discriminant: verbally
- Definition of discriminant: graphically
- Example of using the discriminant to determine the type and number of solution(s)
- Choose **ONE** of the following:
    - Solve by quadratic formula explanation and example
    - Solve by factoring explanation and example
    - Solve by square roots explanation and example
    - Solve by completing the square explanation and example

Possible apps/software you can use:

- Movenote
- Prezi
- Pow toon
- Clarisketch
- Lensoo
- Flip a clip
- Blendspace
- Emaze
- YouTube
- If you think of something else you want to use, check with me first

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Rubric

Objective	1	2	3	4
Neatness/ Organization	The project is not organized with each of the learning targets. The project is not professional quality.	The project is not separated with each of the learning targets.	The project is presented with fairly legible explanations and examples. The mathematics and presentation are easy to distinguish.	The project is presented in a professional format. All explanations and examples are either typed or neatly written.
Overall Creativity/ Uniqueness	The lesson contains no attempt at artistic representation.	Artistic representation is attempted in the lesson but lacks details.	The lesson contains some artistic representations containing details.	The lesson's artistic representation contains extra details that make it attractive.
Mathematical Accuracy/ Rigor/ Content **(for each of the 14 definitions/examples)**	The project contains definitions that are not correct. The project contains examples with no work shown.	The project contains correct definitions. The project contains correct examples. Each example contains a few steps**.**	The project contains definitions written in the student's own words. The project contains correct unique examples. Each example contains detailed steps.	The project contains definitions written in the student's own words that are clear and concise. The project contains correct unique examples that challenge the reader and author, representing their mastery. Each example contains detailed steps with explanations.

Objective	Possible Points	Awarded Points
Neatness/ Organization	**16**	
Overall Creativity/ Uniqueness	**16**	
Mathematical Accuracy/ Rigor/ Content (for each of the 14 definitions/examples)	**70 (5 each)**	
Total	**102**	