Chapter 7 Similarity and Art Project

Name _____ Per. ____

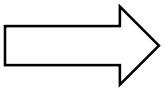
LT1: I can create a proportional copy of a picture using similar squares.

LT2: I can demonstrate craftsmanship in the presentation of my mathematical work.

LT3: I can clearly communicate the process for creating my proportional picture.

In this project, you will be creating a proportional drawing of a piece of art using similar squares. Follow the directions and be sure to read the rubric so that you will meet all the learning targets!

1. Select a picture, save it into a document, and share the document with your teacher. She will approve it and then print it for you. Its size in the document must be smaller than 5 inches by 7 inches originally.
2. Draw a grid of squares onto your picture. You must determine the appropriate number of squares based off the level of detail your artwork will require. Be sure to measure carefully because each of your squares must be exactly the same size. If needed, you may cut off a little bit of the border of the picture to make it fit within your squares.
3. The proportional copy of your picture must fill a regular size (8.5 by 11 inches) piece of paper. Determine the scale factor that you will need to multiply your grid by to make your new picture fit on this piece of paper.
4. Draw the larger grid onto your piece of paper using a ruler. Be precise!
5. Copy the contents from the smaller grid to your larger grid to create a proportional copy of the original artwork.
6. Complete your new drawing by using sharpie and colored pencils or markers to finish the artwork (please make sure that your grid lines still show!). The only pencil that should be showing is for the grid lines.
7. Attach your original smaller artwork to the back of your new artwork. Additionally, write out the process you used to calculate your original grid size, your new grid size, and the scale factor you used on the back of your new artwork as well.

Rubric 

LT1: I can create a proportional copy of a picture using similar squares.

_____ Accomplished (10): Project uses similar squares accurately and is a very accurate proportional copy of the original artwork. Squares are precise.

_____ Sufficient (8): Project uses similar squares accurately and is a close likeness to the original artwork.

_____ Developing (6): Project resembles the original artwork, but the proportions are inaccurate.

_____ Inadequate (4): Project demonstrates limited use of similar squares for accuracy.

_____ Minimal (2): Little or no effort was made toward accuracy.

LT2: I can demonstrate craftsmanship in the presentation of my mathematical work.

_____ Accomplished (10): Project is neat, well-crafted, and the coloring is well done. Lines are drawn over in black ink.

_____ Sufficient (8): Project is neat, colorful, and a close likeness to the original artwork.

_____ Developing (6): Project needs improvement in neatness and/or coloring. There are distinguishable differences between the original artwork and the proportional copy.

_____ Inadequate (4): Project does not appear ready to turn-in. Still in draft status.

_____ Minimal (2): Little or no effort was made toward presentation and craftsmanship.

LT3: I can clearly communicate the process for creating my proportional picture.

_____ Accomplished (10): The explanation of work is very clear and thorough.

_____ Sufficient (8): The explanation of work is easily followed and shows how the original grid, new grid, and scale factor were determined.

_____ Developing (6): The explanation of work is missing key pieces or is not easily followed.

_____ Inadequate (4): The explanation is unclear and/or is missing key pieces of information.

_____ Minimal (2): The explanation is very difficult to follow and key information is missing.