

Geometry Fundamentals Triangle Project Triangle Artwork (25% of assessment grade)

Introduction: For this project you will work individually creating a project using nothing but triangles. You will create a piece of original artwork on large grid poster board. Your project will be created using only triangles and will be graded on the originality and neatness of the project.

Materials:

Geometry textbooks
large grid poster board
handheld geometry tools: rulers, protractors, and compass
crayons or colored pencils
pencils

Criteria: Part 1 - Artwork: You will be creating a piece of artwork using triangles and triangles only. NO other shapes are permitted in your project. If you want any other shapes, you must make them out of triangles. Be creative and colorful in your design using crayons or colored pencils only (no markers).

Your design must include the following:

- acute triangles
- obtuse triangles
- right triangles
- scalene triangles
- equilateral/equiangular triangles
- isosceles triangles
- congruent triangles that can be proven by using SSS, SAS, ASA, and AAS

You may use as little or as many of the above mentioned triangles in your artwork; however, they must be used at least once and the entire poster board needs to be covered. No white of the poster board should be exposed and 90% of the poster board needs to be covered in triangles. You MUST use a ruler!!! Do not free hand the triangles.

Part 2 - Written Report: In addition to your physical project you will also need to complete a written aspect of the project. You are required to use several different types of triangles in your project along with their properties. In order to prove your learning, you will be required to write a 1-2 page paper in MLA format explaining your artwork and the different types of triangles used to create your project. No other method of submission will be accepted.

Criteria for the written report includes:

Paragraph 1: introduction

Paragraph 2: provide detailed explanations and descriptions of your artwork: how were you inspired to create your artwork, what inspired you to create your artwork, what does your artwork represent, etc.

Paragraph 3: describe how you used the different types of triangles listed above along with an explanation of the process used in creating the image(s) in your artwork; how did you incorporate the properties of triangles (SSS, SAS, ASA, AAS), include how to determine the congruency of triangles based on SSS, SAS, ASA, AAS (what is required to determine congruency based on these postulates/theorems)

Paragraph 4: explain how two or more of the concepts relate to the real world or how they can be applied to the real world with specific examples, details, reasons, and explanations (requires you to do some research)

Paragraph 5: provide your opinion of the project: how do you feel about your final product, did you enjoy the project, do you feel it reinforced what you learned in the chapter, etc.

Paragraph 6: write a concluding paragraph briefly summarizing your paper

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Honors Math 2 or Math 2

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Art Project Written Report Sample

In this report, I will be discussing my artwork's explanation, triangles used in the artwork, real life application of triangles, and the process of my project.

I was inspired to create my artwork from ...*[insert explanation]*. My artwork represents ...*[insert explanation]*. Additionally, ...*[insert any other types of explanation regarding your art]*.

In creating the images of my artwork, I used various types of triangles. The acute triangle(s) can be found ... *[insert explanation]*. The obtuse triangle(s) can be found ... *[insert explanation]*. The right triangle(s) can be found ... *[insert explanation]*. The scalene triangle(s) can be found ... *[insert explanation]*. The equilateral/equiangular triangle(s) can be found ... *[insert explanation]*. The isosceles triangle(s) can be found ... *[insert explanation]*. Additionally, I incorporated congruent properties of triangles in my artwork. The congruent triangle(s) by the SSS property can be found ... *[insert explanation]*. The triangles according to the SSS theorem state the triangles are congruent by ... *[insert explanation]*. The congruent triangle(s) by the SAS property can be found ... *[insert explanation]*. The triangles according to the SAS theorem state the triangles are congruent by ... *[insert explanation]*. The congruent triangle(s) by the ASA property can be found ... *[insert explanation]*. The triangles according to the ASA theorem state the triangles are congruent by ... *[insert explanation]*. The congruent triangle(s) by the

AAS property can be found ... [*insert explanation*]. The triangles according to the AAS theorem state the triangles are congruent by ... [*insert explanation*].

Some of the congruent properties of triangles including [*insert theorem*] relate to the real world by ... [*insert explanation*] (citation: website or book). Additionally, another [*insert property name*] of triangles can be applied to the real world by [*insert explanation*] (citation: website or book).

How I felt about my art project was ... [*insert explanation*]. I did/did not enjoy my art project because ... [*insert explanation*]. The art project reinforced what I learned about triangles in class by [*insert explanation*].

This report discussed my artwork and mathematical explanation regarding triangle properties and theorems. [*add any additional closing comments*]