

# Chapter 7: Similarity

Content Area: **Math**  
Course(s): **Geometry CP, Geometry A, Geometry H**  
Time Period: **Marking Period 2**  
Length: **10 Days**  
Status: **Published**

## Unit Introduction

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## Standards

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CCSS.Math.Content.HSG-SRT.A.2	Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
CCSS.Math.Content.HSG-SRT.A.3	Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.
CCSS.Math.Content.HSG-SRT.B.4	Prove theorems about triangles.
CCSS.Math.Content.HSG-SRT.B.5	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

## Essential Questions

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- How do you identify corresponding parts of similar triangles?
- How do you show two triangles are similar?
- How do you use proportions to find side lengths in similar polygons?

## Content

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- 7.1 - Ratios and Proportions
- 7.2 - Similar Polygons
- 7.3 - Proving Triangles Similar
- 7.4 - Similarity in Right Triangles
- 7.5 - Proportions in Triangles

## Skills

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- Find geometric mean
- Identify and apply similar polygons
- To find and use relationships in similar right triangles

- To use and apply AA, SAS, and SSS similarity statements.
- To use the Side-Splitter Theorem
- To use the Triangle-Angle Bisector Theorem
- Use relevant vocabulary, symbols and notation.
- Use similarity to find indirect measurements
- Write ratios and solve proportions.