

Chapter 5: Relationships with Triangles

Content Area: **Math**
Course(s): **Geometry CP, Geometry A, Geometry H**
Time Period: **Marking Period 2**
Length: **9/10 Days**
Status: **Published**

Unit Introduction

Standards

CCSS.Math.Content.HSG-C.A.3	Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.
CCSS.Math.Content.HSG-CO.C.9	Prove theorems about lines and angles.
CCSS.Math.Content.HSG-CO.C.10	Prove theorems about triangles.
CCSS.Math.Content.HSG-SRT.B.4	Prove theorems about triangles.

Essential Questions

- How do you solve problems that involve measurements of triangles?
- How do you use coordinate geometry to find relationships within triangles?

Content

- 5.1 - Midsegments in Triangles
- 5.2 - Perpendicular and Angle Bisectors
- 5.3 - Bisectors in Triangles
- 5.4 - Medians and Altitudes
- 5.6 - Inequalities in One Triangle
- 5.7 - Inequalities in Two Triangles (H)

Skills

- Apply inequalities in two triangles
- Find the circumcenter of a triangle
- Identify and use properties of medians and altitudes of a triangle
- Identify and use the incenter of a triangle
- Use algebra to solve relevant geometric problems
- Use and apply the hinge theorem

- Use inequalities using angles and sides of triangles
- Use properties of midsegments to solve problems.
- Use properties of perpendicular bisectors and angle bisectors
- Use relevant vocabulary, symbols and notation.