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-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.

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.

Essential Questions

- How do you solve problems the 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 inequalites 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.