

Chapter 6: Polygons and Quadrilaterals

Content Area: **Math**
Course(s): **Geometry CP, Geometry A, Geometry H**
Time Period: **Marking Period 2**
Length: **11 Days**
Status: **Published**

Unit Introduction

Standards

- CCSS.Math.Content.HSG-CO.C.11 Prove theorems about parallelograms.
- 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

- How can you classify quadrilaterals?
- How can you find the sum of the measures of polygon angles?

Content

- 6.1 - The Polygon Angle Sum Theorem
- 6.2 - Properties of Parallelograms
- 6.3 - Proving that a Quadrilateral is a Parallelogram
- 6.4 - Properties of Rhombuses, Rectangles, and Squares
- 6.5 - Conditions of Rhombuses, Rectangles, and Squares
- 6.6 - Trapezoids and Kites

Skills

- Apply characteristics of similar polygons to problem solving.
- Apply the Polygon Angle Sum Theorem
- Classify polygons.
- Complete proofs applying the characteristics of quadrilaterals.
- Define and classify special types of parallelograms
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- Define and classify special types of quadrilaterals.

- Determine whether a quadrilateral is a parallelogram.
- Find the sum of the measures of the exterior angles of a polygon
- Find the sum of the measures of the interior angles of a polygon
- Make geometric constructions (square).
- Prove geometric theorems.
- Solve problems involving the properties of a parallelogram, rectangle, rhombus, square, trapezoid and kite.
- Use properties of diagonals of rhombuses and rectangles
- Use relationships among sides and angles of parallelograms
- Use relationships among diagonals of parallelograms
- Use relevant vocabulary, symbols and notation.