



Inscribed and Circumscribed Circles in Geometry

Today's Standard

HSG.C.A3 - Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.

Cues	Notes
Inscribed Circle	An inscribed circle is inside a polygon and touches all sides.
Circumscribed Circle	A circumscribed circle is outside a polygon and touches all vertices.
Cyclic Quadrilateral	A cyclic quadrilateral is a quadrilateral that can be inscribed in a circle, with opposite angles summing to 180 degrees.
Compass and Straightedge	A compass and straightedge are tools used for geometric constructions.
Properties of Angles	Understanding the properties of angles in polygons is crucial for constructing inscribed and circumscribed circles.

Summary

This standard involves constructing inscribed and circumscribed circles and understanding the properties of angles in cyclic quadrilaterals. Mastery of these concepts is essential for advanced geometric proofs and real-world applications.