Learning Targets

Circles

Lesson 1: Lines, Angles, and Curves

- I know what chords, arcs, and central angles are.

Lesson 2: Inscribed Angles

- I can use the relationship between central and inscribed angles to calculate angle measures and prove geometric theorems.
- I know that an inscribed angle is half the measure of the central angle that defines the same arc.

Lesson 3: Tangent Lines

- I can use the relationship between tangent lines and radii to calculate angle measures and prove geometric theorems.
- I know that a line tangent to a circle is perpendicular to the radius drawn to the point of tangency.

Lesson 4: Quadrilaterals in Circles

- I can prove a theorem about opposite angles in quadrilaterals inscribed in circles.

Lesson 5: Triangles in Circles

- I can construct the circumscribed circle of a triangle.
- I can explain why the perpendicular bisectors of a triangle's sides meet at a single point.

Lesson 6: A Special Point

- I can explain why the angle bisectors of a triangle meet at a single point.
- I know any point on an angle bisector is equidistant from the rays that form the angle.

Lesson 7: Circles in Triangles

- I can construct the inscribed circle of a triangle.

Lesson 8: Arcs and Sectors

- I can calculate lengths of arcs and areas of sectors in circles.

Lesson 9: Part to Whole

- I can gather information about a sector to draw conclusions about the entire circle.

Lesson 10: Angles, Arcs, and Radii

- I know that when a circle is dilated, some ratios, like the ratio of the circumference to the diameter, stay constant.

Lesson 11: A New Way to Measure Angles

- I know that the radian measure of an angle whose vertex is the center of a circle is the ratio of the length of the arc defined by the angle to the circle's radius.

Lesson 12: Radian Sense

- I understand the relative sizes of angles measured in radians.

Lesson 13: Using Radians

- I can calculate the area of a sector whose central angle measure is given in radians.
- I know that the radian measure of an angle can be thought of as the slope of the line $\ell = \theta \cdot r$.

Lesson 14: Putting It All Together

- I can use properties of circles to solve geometric problems.