

<name>

Class: Honors Geometry

Date: <date>

Topic: Lesson 7-6 (Circles and Arcs)

Definitions

Congruent circles

Circles with congruent radii.

Central angle

\angle vertex is center of the circle. Example: circle graphs/pie charts

Arc

Part of circle around the edge. Name by at least 2 endpoints. \widehat{AB}

Measure of an arc

Equal to measure of central \angle . $m\widehat{ABC} = m\angle ABC$

Semicircle

Arc going $\frac{1}{2}$ around circle. Endpts are diameter. Measure = 180

Minor arc

Arc whose measure $<$ measure semicircle (< 180) Name by endpts

Major arc

Arc whose measure $>$ measure semicircle (> 180) Name by 3 pts.
Measure = $360 -$ measure associated minor arc.

Adjacent arcs

Arcs that share exactly one point (an endpoint)

Postulate 7-1

Arc Addition Postulate

$$m\widehat{ADB} = m\widehat{AD} + m\widehat{DB}$$

Theorem 7-13

Circumference of a circle

$$C = \pi d \text{ or } C = 2\pi r$$

Definition

Concentric circles

Co-planar circles that share same center. Ex: target bulls-eye

Theorem 7-14

Arc Length

$$\widehat{AB} = \frac{m\widehat{AB}}{360} \cdot 2\pi r$$

Definition

Congruent arcs: same measure and length