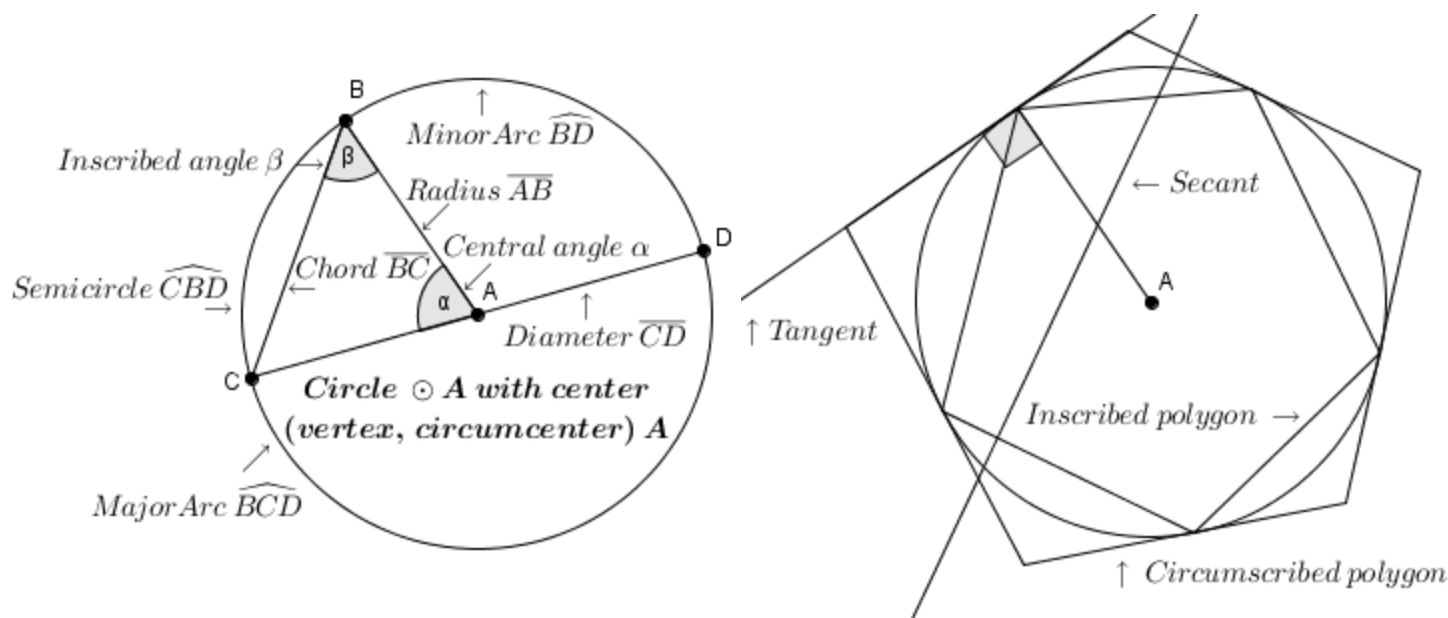


Honors Geometry – Chapter 10 Study Guide

Vocabulary



Equations and theorems

$$\pi \approx 3.14159 \approx 22/7$$

Circumference of a circle: $2\pi r$ or πd

Degrees in a circle: 360°

Arc measure = Interior angle

Arc length = Measure \times circumference / 360°

Central angles are congruent \equiv Corresponding arcs are congruent \equiv Corresponding chords are congruent

A radius is perpendicular to a chord \equiv A radius bisects a chord

Tangents are perpendicular to the radius of a circle

The two segments between a point outside a circle and the tangent points on a circle are congruent

Add inside, subtract outside:

- If two lines intersect **INSIDE** a circle, their angle measure equals **HALF** the **SUM** of the intercepted arcs
- If they intersect **OUTSIDE** a circle, their angle measure equals **HALF** the **DIFFERENCE** of the intercepted arcs
- If they intersect **ON** a circle, their angle measure equals **HALF** the measure of the intercepted arc

Standard equation of a circle (where (h,k) is the center of the circle and r is its radius):

$$(x - h)^2 + (y - k)^2 = r^2$$