

# Geometry - Circles Part 1

Chapter 10 --- segments  
Section 1, 3, 6, 7  
April 22 - 26

## Standards

Common Core:

HSG-CO.A.1,  
HSG-CO.D.13,  
HSG-C.A.1,  
HSG-C.A.2,  
HSG-C.A.3,  
HSG-C.A.4,  
HSG-MG.A.1,  
\*HSG-MG.A.3,  
HSG-GPE.A.1,  
HSG-GPE.B.4

# CP Class Period 3

Monday - Circle **Chapter Section 10.1**: Introduction to Circle Segments such as

- Radius, Diameter, CHORD
- TANGENT versus SECANT
- Property of 2 tangent segments being congruent AND Tangent perpendicular to RADIUS and Diameter

Tuesday - Practice work day for Tangent - online assignment 10.1 (9th graders absent so do for HW)

Wednesday - Notes and Examples with **Section 10.3** CHORDS

Thursday - Notes and Examples with **section 10.6** TANGENTS, SECANTS, CHORDS intersections

Friday - Practice Day with online bigideasmath.com assignments 10.3 & 10.7

Monday - Notes off edpuzzle and video for equation of a circle

**Test Forecast -- Thursday 5/2 next week tentatively**

# Geometry Period 4 & 5

Week April 22 - 26

Monday and Tuesday --- Finish Surface Area Test

Wednesday - Notes with Examples on **Section 10.1** Circle Terms &  
TANGENT

Thursday - Practice day with assignment 10.1 online [bigideasmath.com](http://bigideasmath.com)

Friday - Notes with Examples on **Section 10.3** Chords and Diameter

# Section 10.1 on Circle terms and properties with Tangent

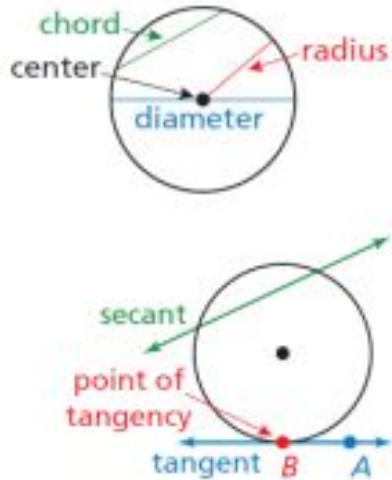
Student Journal pg 278, 282 complete examples

**Example Videos:** put on pg 280 - 281 **Show them so students remember they can access them to learn and to review concepts**

- 1) Reviews terms: radius, chord, diameter is longest chord, tangent line touches the circle once, secant line goes straight thru circle touches 2 times as chord is the section inside circle
- 2) Locations of intersections of tangent lines with multiple circles.
- 3 & 4) Tangent with radius or diameter is perpendicular in example
- 5) 2 Tangent lines intersect and form congruent segments with circle radius

# Practice Day Section 10.1

Online Textbook problems listed below & Practice A worksheet with Puzzletime also.



## Lines and Segments that Intersect Circles

5	6	7	8	9	10
11	12	13	14	15	16
19	20	29	30	34	

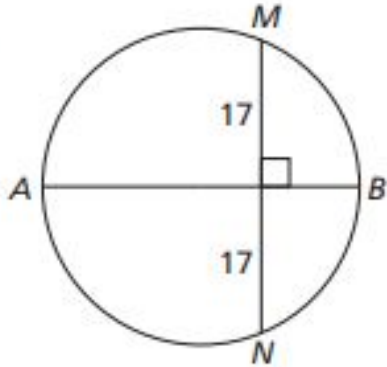
# Section 10.3 on Circle properties with CHORDS

- Warmup from packet: 10.3 Start THINKING section.
- **Example Video:** put on pg 289  
**Show them so students remember they can access them to learn and to review concepts**
  - Video #4 only - as only concentrating on the radius or diameter relationship with bisecting a chord at right angle theorem.
- Complete assorted problems off worksheet Practice A # 3-10
- Student Journal pg 392 complete examples

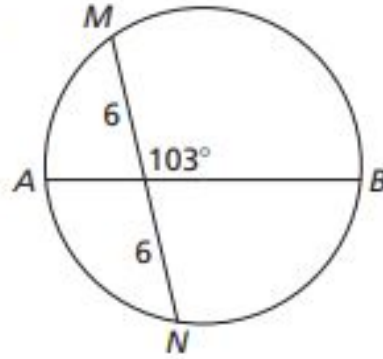
# Main Examples to hit off worksheet 10.3

6. Determine whether  $\overline{AB}$  is a diameter of each circle. Explain your reasoning.

a.



b.



# Section 10.6: Circle formulas w/TANGENTS & SECANTS

**Example Videos:** put on pg 305-306 **Show them so students remember they can access them to learn and to review concepts**

- 1) Intersection of chords example
- 2) Intersection of secants example
- 3) Intersection of tangent and secant

Student Journal pg 307 complete examples

Start on worksheets - Kuta software examples

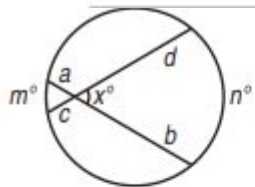


# Formulas with a, b, c, d, are the focus on segments for test

KEYSTONE

REFERENCE

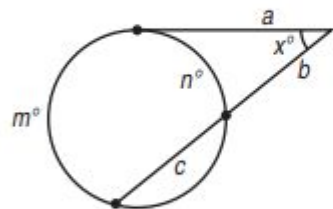
## GEOMETRY FORMULA SHEET – PAGE 1



**2 Chords**

$$a \cdot b = c \cdot d$$

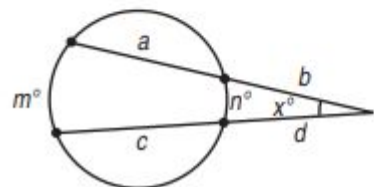
$$x = \frac{1}{2}(m + n)$$



**Tangent-Secant**

$$a^2 = b(b + c)$$

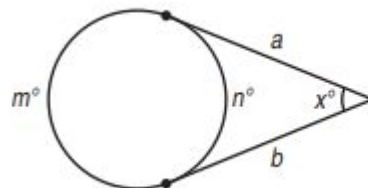
$$x = \frac{1}{2}(m - n)$$



**2 Secants**

$$b(a + b) = d(c + d)$$

$$x = \frac{1}{2}(m - n)$$

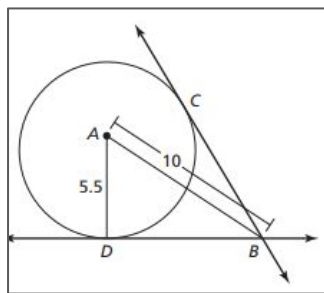


**2 Tangents**

$$a = b$$

$$x = \frac{1}{2}(m - n)$$

We will add to the sheet the following to help students for our course tests.

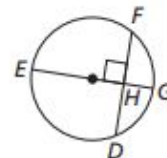


**10.7 Perpendicular Chord Bisector Theorem**

If a diameter of a circle is perpendicular to a chord, then the diameter bisects the chord and its arc.

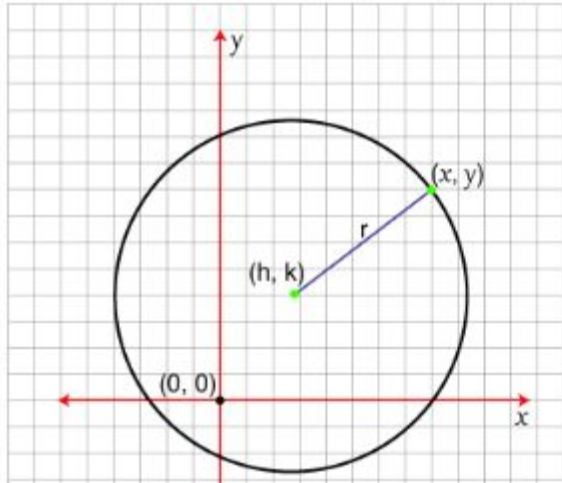
**10.8 Perpendicular Chord Bisector Converse**

If one chord of a circle is a perpendicular bisector of another chord, then the first chord is a diameter.



# 10.7 EQUATION of circle --- for Next week to complete unit

## Equation of a Circle



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

here,

$r$  = radius,

$(h, k)$  = center,

$(x, y)$  = a point on the  
circumference