

October 23, 2018, Tuesday  
 Draw a circle and a secant line.  
 Draw a circle and a tangent line.

Oct 17-2:06 PM

Geometry Name: \_\_\_\_\_ ID: 1  
 Central Angles  
 Name the arc made by the given angle.  
 1)  $\angle AOC$  → Major arc  $\widehat{AC}$   
 2) Major arc for  $\angle QGH$  →  $\widehat{GH}$   
 Name the central angle of the given arc.  
 3)  $\widehat{AC}$  →  $\angle AOC$  or  $\angle COA$   
 4)  $\widehat{GH}$  →  $\angle G$   
 Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.  
 5)  $\angle P = 160^\circ$   
 6)  $\angle P = 90^\circ$   
 7)  $m\angle SRT = 70^\circ$  (diameter/line)  
 8)  $m\angle FHE = 65^\circ$

Oct 23-7:56 AM

Review!

Central angle:  $x^\circ$   
 Inscribed angle:  $\frac{1}{2}x^\circ$

$A + C = 180$   
 $B + D = 180$

Oct 23-11:01 AM

Geometry Name: \_\_\_\_\_ ID: 1  
 Central Angles  
 Name the arc made by the given angle.  
 1)  $\angle MQE$   
 2) Major arc for  $\angle GQH$   
 Name the central angle of the given arc.  
 3)  $\widehat{AC}$   
 4)  $\widehat{GH}$   
 Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.  
 5)  $160^\circ$   
 6)  $90^\circ$   
 7)  $m\angle SRT = 70^\circ$   
 8)  $m\angle FHE = 65^\circ$

Oct 23-7:56 AM

Copy p 670 - inscribed Quadrilateral Theorem

Supplementary =  $180^\circ$

What does this theorem mean related to this picture?

$A + C = 180$   
 $B + D = 180$

Oct 23-7:57 AM

Geometry Name: \_\_\_\_\_ ID: 1  
 Inscribed in a Circle  
 Find the measure of the arc or angle indicated.  
 1) Inscribed  $\angle$   
 $\frac{97}{2} = 48.5$   
 $194 = ?$   
 2) Inscribed  $\angle$   
 $\frac{99}{2} = 49.5$   
 $\frac{198}{2} = 99$   
 $? = 118$   
 3) Inscribed  $\angle$   
 $\frac{61}{2} = 30.5$   
 $? = 32$   
 4) Inscribed  $\angle$   
 5) Inscribed  $\angle$   
 6) Inscribed  $\angle$

Oct 23-8:00 AM

Oct 23-8:00 AM

Oct 23-8:01 AM

Oct 23-8:01 AM

Use a laptop to find the following:

- Intersecting Chords Angle Measure Theorem
- Tangent-Secant Interior Angle Measure Theorem
- Tangent-Secant Exterior Angle Measure Theorem (there should be three)
- Angle Relationships in Circles (there should be three)

If no tech, use pages 700-702

Oct 23-8:02 AM

p 700

**The Intersecting Chords Angle Measure Theorem**

If two secants or chords intersect in the interior of a circle, then the measure of each angle formed is half the sum of the measures of its intercepted arcs.

Chords  $\overline{AD}$  and  $\overline{BC}$  intersect at  $E$ .

$$m\angle 1 = \frac{1}{2}(m\widehat{AB} + m\widehat{CD})$$

p 701

**The Tangent-Secant Interior Angle Measure Theorem**

If a tangent and a secant (or a chord) intersect on a circle at the point of tangency, then the measure of the angle formed is half the measure of its intercepted arc.

Tangent  $\overline{BC}$  and secant  $\overline{BA}$  intersect at  $B$ .

$$m\angle ABC = \frac{1}{2} m\widehat{AB}$$

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p 702

**The Tangent-Secant Exterior Angle Measure Theorem**

If a tangent and a secant, two tangents, or two secants intersect in the exterior of a circle, then the measure of the angle formed is half the difference of the measures of its intercepted arcs.

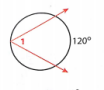


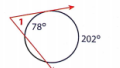
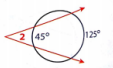
$$m\angle 1 = \frac{1}{2}(m\widehat{AD} - m\widehat{BD})$$

$$m\angle 2 = \frac{1}{2}(m\widehat{EHG} - m\widehat{EG})$$

$$m\angle 3 = \frac{1}{2}(m\widehat{JN} - m\widehat{KM})$$

Oct 17-2:09 PM

p 704

Vertex of the Angle	Measure of Angle	Diagrams
On a circle	Half the measure of its intercepted arc	 $m\angle 1 = 60^\circ$  $m\angle 2 = 100^\circ$
Inside a circle	Half the sum of the measures of its intercepted arcs	 $m\angle 1 = \frac{1}{2}(44^\circ + 86^\circ) = 65^\circ$
Outside a circle	Half the difference of the measures of its intercepted arcs	 $m\angle 1 = \frac{1}{2}(202^\circ - 78^\circ)$  $m\angle 2 = \frac{1}{2}(125^\circ - 45^\circ)$

Oct 17-2:09 PM

Let's practice our new secant and tangent relationships with circles after a foldable.

Oct 17-2:10 PM

October 23, 2018, Tuesday

Oct 17-3:23 PM

Let's practice our new secant and tangent relationships - Kuta

Oct 17-3:25 PM

October 24, 2018 Wednesday

Oct 17-3:25 PM

Unit 4 Study guide for Quiz 1 - are you ready for secants and tangents?

Oct 17-3:25 PM

October 25, 2018, Thursday

Quiz



Oct 17-3:26 PM



Name \_\_\_\_\_ ID: 1



Geometry



**Circumference of a circle...what is 'part' of a circumference called?**

**Find the circumference of each circle.  $C = 2\pi r$  Round your answer to the nearest tenth.**

1)  2) 

3)  4) 

5)  6) 

7)  8) 

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Oct 17-3:26 PM

October 26, 2018, Friday

What is an arc length & how it arc length related to circumference of a circle?


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Name \_\_\_\_\_ ID: 1


Geometry

**Circle circumference to arc length**



**Find the diameter of each circle. Round your answer to the nearest tenth.**

1) 

**Find the radius of each circle. Round your answer to the nearest tenth.**

2) 



**Find the circumference of each circle. Use your calculator's value of  $\pi$ . Round your answer to the nearest tenth.**



3)  4) 



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Oct 17-3:29 PM

**Find the length of each arc. Round your answers to the nearest tenth. Remember arc length is a 'piece' of the circumference.**

5)  6) 

7)  8) 

9)  10) 

11)  12) 

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