

October 15, 2018 Monday

1 What does SOHCAHTOA help you remember...write the equations out in their entirety.  
 $\sin \theta = \frac{o}{h}$     $\cos \theta = \frac{a}{h}$     $\tan \theta = \frac{o}{a}$

2 If the distance from the tree to the student is 10 feet, and the tree is 12 foot high, what is the student's angle of elevation?

$\tan \theta = \frac{o}{a}$   
 $\tan \theta = \frac{12}{10}$   
 $x = 50^\circ$

3 A lost ranger is seen by his partner in a lookout tower, if the partner's angle of depression is 50 degrees, how far is the ranger from the lookout tower?

$\tan \theta = \frac{o}{a}$   
 $45 \tan 50 = \frac{x}{45}$   
 $53 = x$

Oct 11-2:32 PM

Unit 3 Test Study Guide

1.  $BC = 12$ ,  $\sin \theta = \frac{12}{13}$ ,  $\cos \theta = \frac{5}{13}$ ,  $\tan \theta = \frac{12}{5}$   
 $x = 6.7$ ,  $y = 22$

2.  $a^2 + b^2 = c^2$   
 $5^2 + b^2 = 13^2$   
 $25 + b^2 = 169$   
 $b^2 = 144$   
 $b = 12$

3.  $\sin \theta = \frac{o}{h}$   
 $\frac{12}{13} = \frac{o}{13}$   
 $o = 12$

4.  $\cos \theta = \frac{a}{h}$   
 $\frac{5}{13} = \frac{a}{13}$   
 $a = 5$

5.  $\tan \theta = \frac{o}{a}$   
 $\frac{12}{5} = \frac{o}{5}$   
 $o = 12$

6.  $\sin \theta = \frac{o}{h}$   
 $\frac{12}{13} = \frac{o}{13}$   
 $o = 12$

7.  $\cos \theta = \frac{a}{h}$   
 $\frac{5}{13} = \frac{a}{13}$   
 $a = 5$

8.  $\tan \theta = \frac{o}{a}$   
 $\frac{12}{5} = \frac{o}{5}$   
 $o = 12$

9.  $\sin \theta = \frac{o}{h}$   
 $\frac{12}{13} = \frac{o}{13}$   
 $o = 12$

10.  $\cos \theta = \frac{a}{h}$   
 $\frac{5}{13} = \frac{a}{13}$   
 $a = 5$

11.  $\tan \theta = \frac{o}{a}$   
 $\tan 40 = \frac{14}{x}$   
 $x = 17$

12.  $\sin \theta = \frac{o}{h}$   
 $\sin 30 = \frac{14}{x}$   
 $x = 28$

13.  $\cos \theta = \frac{a}{h}$   
 $\cos 22 = \frac{14}{x}$   
 $x = 15$

12. A forest ranger is on a fire lookout tower in a national forest. His observation post is 214 ft above the ground. He spots a fire. The angle of depression from his line of sight to the fire is 12°. How far away is the fire from the lookout tower to the nearest foot?

$\cos \theta = \frac{a}{h}$   
 $\cos 12 = \frac{214}{x}$   
 $x = 218$

13. Find angles X and Z.

$\sin \theta = \frac{o}{h}$   
 $\sin X = \frac{12}{35}$   
 $X = 20$   
 $Z = 36$

16. Find ST.

$\sin \theta = \frac{o}{h}$   
 $\sin 20 = \frac{ST}{5.6}$   
 $ST = 1.9$

October 16, 2018, Tuesday

Find the length of the side labeled x. Round intermediate values to the nearest tenth. Use the rounded values to calculate the next value. Round your final answer to the nearest tenth.

1)

2)

3)

Find the length of the side labeled x. Round intermediate values to the nearest tenth. Round your final answer to the nearest tenth.

1)

2)

3)

Find the measure of the indicated angle to the nearest degree.

1)

2)

3)

Find the measure of the indicated angle to the nearest degree.

1)

Oct 11-2:32 PM

October 17, 2018, Wednesday

Parts of a Circle

Choose from the following to complete the labeled diagram:

Arc	Radius	Tangent Segment
Diameter	Sector	Circumference
Chord	Circumference	


Oct 11-3:55 PM

1st - Read column 1  
 2nd - Recap what was read  
 2nd - Read column 2 & 3  
 1st - Recap what was read  
 1st & 2nd Answer 1-4  
 Please do not write in books


Oct 17-11:25 AM

October 17, 2018, Thursday


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

1)   $A = \pi r^2$   
 $A = \pi 6^2$   
 $A = 36\pi \approx 113.04$   
 113.1 km<sup>2</sup>

Find the circumference of each the nearest tenth.

2)   $C = 2\pi r$   
 $C = 2\pi 5$   
 31.4 km

Find the diameter of each circle.

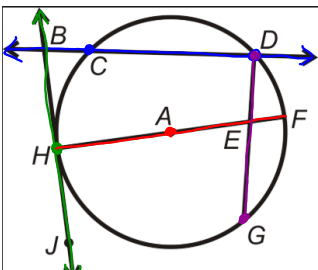
3)   $d = 2r$   
 12 ft

Oct 17-12:56 PM

P 659-662 define circle vocabulary words (= 8) with picture

Copy:  
 arc addition post p 661  
 inscribed angle theorem p 662  
 inscribed angle of a diameter theorem p 664

Oct 11-2:32 PM




$\overleftrightarrow{BD}$  = Secant  
 $\overleftrightarrow{HJ}$  = Tangent  
 $\overline{HF}$  = Diameter  
 $\overline{DG}$  = Chord


Oct 18-10:26 AM


p664-665


**Evaluate: Homework and Practice**

Identify the chord(s), inscribed angle(s), and central angle(s) in the figure.  
 The center of the circles in Exercises 1, 2, and 4 is C.

1.  **cm**


2. 

3.  **mm**

4.  **AO**


chords:  $\overline{RS}, \overline{ST}, \overline{SU}, \overline{RT}$   
 inscribed angles:  $\angle RST, \angle STR, \angle TRS, \angle UST, \angle USR$   
 central angle:  $\angle SCT, \angle RCS, \angle RCU, \angle TCU$

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1. 

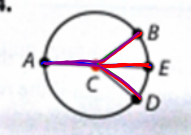
Chords:  $\overline{ED}, \overline{EF}$   
 Inscribed Angles:  $\angle FED$   
 Central Angles:  $\angle DCF$

Oct 18-12:29 PM

3. 

Chords:  $\overline{DG}, \overline{GE}, \overline{EF}, \overline{DF}$   
 Inscribed Angles:  $\angle DEG, \angle FDG, \angle GFD, \angle DFE, \angle GEF$   
 Central Angles: NONE

Oct 18-12:30 PM

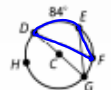
4. 

Chords:  $\overline{CA}, \overline{EA}, \overline{AE}$   
 Central Angles:  $\angle BCD, \angle BCE, \angle ECD, \angle ACD,$   
 Inscribed Angles:  $\angle ACB, \angle ECB$   
 Central Angles:  $\angle ACD, \angle BCE, \angle ECD$   
 Inscribed Angles:  $\angle ACB, \angle ECB$   
 NONE

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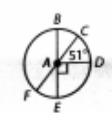
In circle C,  $m\widehat{DE} = 84^\circ$ . Find each measure.

$\leftarrow \text{arc } DE = 84$



5.  $m\angle DGE = \frac{84}{2} = 42$       6.  $m\angle EFD = \frac{84}{2} = 42$

The center of the circle is A. Find each measure using the appropriate theorems and postulates.



7.  $m\widehat{CE}$   
 8.  $m\widehat{DF}$   
 9.  $m\widehat{BEC}$

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Find each measure using the appropriate theorems and postulates.  $m\widehat{AC} = 116^\circ$

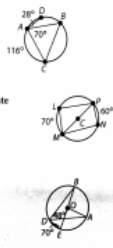
10.  $m\widehat{BC}$   
 11.  $m\widehat{AD}$

The center of the circle is C. Find each measure using the appropriate theorems and postulates.  $m\widehat{LM} = 70^\circ$  and  $m\widehat{NP} = 60^\circ$ .

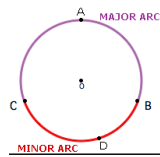
12.  $m\angle MNP$   
 13.  $m\angle LMN$

The center of the circle is O. Find each arc or angle measure using the appropriate theorems and postulates.

14.  $m\angle BDE$       15.  $m\widehat{ABD}$   
 16.  $m\widehat{ED}$       17.  $m\angle DBE$



Oct 11-2:56 PM




MAJOR ARC  
 MINOR ARC

Oct 18-10:36 AM

Geometry \_\_\_\_\_ Name \_\_\_\_\_ ID: 1  
 Central Angles \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_


Name the arc made by the given angle.

1)  $\angle MQL$       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)  $\angle SRT$       6)  $\angle FHE$



7)  $m\angle SRT$       8)  $m\angle FHE$




Oct 11-3:03 PM

Geometry \_\_\_\_\_ Name \_\_\_\_\_ ID: 1  
 Central Angles \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_


Name the arc made by the given angle.

1)  $\angle MQL$       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)  $\angle SRT$       6)  $\angle FHE$



7)  $m\angle SRT$       8)  $m\angle FHE$



Oct 11-3:03 PM

October 18, 2018, Thursday

Oct 11-3:04 PM

Copy p 670 - inscribed Quadrilateral Theorem

What does this theorem mean related to this picture?

Oct 11-3:05 PM

**Practice: Quadrilaterals inscribed in a Circle:**  
Ex5: Find the value of each variable.

1.

2.

3.

Oct 11-3:14 PM

Use the figure for Exercises 5–6. Find each measure using the appropriate theorems and postulates.

5.  $m\angle B$
6.  $m\widehat{DAB}$

7.  $GHIJ$  is a quadrilateral. If  $m\angle HJI + m\angle HGJ = 180^\circ$  and  $m\angle H + m\angle J = 180^\circ$ , could the points  $G, H, I,$  and  $J$  points of a circle? Explain.

8.  $LMNP$  is a quadrilateral inscribed in a circle. If  $m\angle L = m\angle N$ , is  $\widehat{MP}$  a diameter of the circle? Explain.

Oct 11-3:16 PM

**Multi-Step Find the angle measures of each inscribed quadrilateral.**

10.

11.

Oct 11-3:17 PM

18. In the diagram,  $C$  is the center of the circle and  $ZYZ$  is inscribed in the circle. Classify each statement as true, false, or cannot be determined.

- a.  $\overline{CX} \cong \overline{CY}$
- b.  $\overline{CZ} \cong \overline{XY}$
- c.  $\triangle CXZ$  is isosceles.
- d.  $\triangle CYZ$  is equilateral.
- e.  $\overline{XY}$  is a diameter of circle  $C$ .

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

Inscribed Angles - tech search for a pic and definition!



How are inscribed angles different from inscribed quadrilaterals?



Oct 11-3:17 PM

Geometry \_\_\_\_\_ Name \_\_\_\_\_ ID: 1  
 Inscribed in a Circle \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

Find the measure of the arc or angle indicated.



1)  2) 



3)  4) 

5)  6) 



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

7)  8) 

9)  10) 

Solve for x.

11)  12) 

Find the measure of the arc or angle indicated.



13) Find  $m\widehat{EG}$   14) Find  $m\widehat{KZ}$  



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
Oct 11-3:24 PM

Geometry \_\_\_\_\_ Name \_\_\_\_\_ ID: 1  
 Inscribed in a Circle \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

Find the measure of the arc or angle indicated.



1)   $194^\circ$  2)   $172^\circ$



3)   $118^\circ$  4)   $112^\circ$

5)   $32^\circ$  6)   $77^\circ$



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

7)   $46^\circ$  8)   $42^\circ$

9)   $85^\circ$  10)   $74^\circ$

Solve for x.

11)   $12$  12)   $8$

Find the measure of the arc or angle indicated.

13) Find  $m\widehat{EG}$    $160^\circ$  14) Find  $m\widehat{KZ}$    $62^\circ$

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Oct 11-3:24 PM

October 19, 2018, Friday

Oct 11-3:26 PM

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 11-3:27 PM

What is a secant line?

What is a tangent line?

Oct 11-3:33 PM

**The Tangent-Secant Exterior Angle Measure Theorem**  
If a tangent and a secant, two secants, 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 the intercepted arcs.

**Angle Relationships in Circles**

Vertex of the Angle	Measure of Angle	Diagrams
On a circle	Half the measure of its intercepted arc.	
Inside a circle	Half the sum of the measures of its intercepted arcs.	
Outside a circle	Half the difference of the measures of its intercepted arcs.	

Oct 11-3:37 PM

Find each measure.

- $m\angle QPR$
- $m\angle ABC$
- $m\angle MKJ$
- $m\angle NPK$

Oct 11-3:38 PM

Find the value of  $x$ .

- 
- 
- 

Oct 11-3:38 PM

Geometry Name \_\_\_\_\_ ID: 1  
Circles, Secant & Tangents Date \_\_\_\_\_ Period \_\_\_\_\_

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

- 
- 
- 
- 
- 
- 

Oct 11-3:42 PM

7) 8)

9) 10)

11) 12)

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Geometry \_\_\_\_\_ Name \_\_\_\_\_ ID: 1  
 Circles, Secant & Tangents \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1) 2)

3) 4)

5) 6)

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7) 8)

9) 10)

11) 12)

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