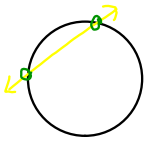
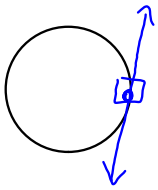
October 23, 2018, Tuesday

Draw a circle and a secant line.

Draw a circle and a tangent line.





Oct 17-2:06 PM

Geometry Name ID: 1

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Central Angles Date Period

Name the arc made by the given angle.

1) $\angle MQL$

$\overset{\frown}{LM}$ minorarc

2) Major arc for $\angle GQH$

$\overset{\frown}{GIH}$ $\overset{\frown}{HIG}$ majorarc

Name the central angle of the given arc.

3) $\overset{\frown}{AC}$

$\angle AQC$

4) $\overset{\frown}{GH}$

$\angle 1$

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

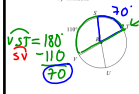
5)

$? = 160°$

6)

$? = 90$

7) $m\angle SRT$



70° diameter line = 180°

$\overset{\frown}{ST} = 180$
$\overset{\frown}{SV}$ -110
70

8) $m\angle FHE$

$\overset{\frown}{GEE} = 180$
$\overset{\frown}{GF}$ -115
65

65

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Oct 23-7:56 AM

Geometry Name ID: 1

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Central Angles Date Period

Name the arc made by the given angle.

1) $\angle MQL$

$\overset{\frown}{ML}$

2) Major arc for $\angle GQH$

$\overset{\frown}{GIH}$

Name the central angle of the given arc.

3) $\overset{\frown}{AC}$

$\angle AQC$

4) $\overset{\frown}{GH}$

$\angle 1$

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

5)

160°

6)

90°

7) $m\angle SRT$

70°

8) $m\angle FHE$

65°

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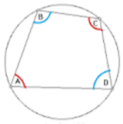
Oct 23-7:56 AM

Copy p 670 - inscribed Quadrilateral Theorem

What does this theorem mean related to this picture?



A + C = 180
B + D = 180

Oct 23-7:57 AM

Geometry Name ID: 1

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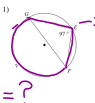
Inscribed in a Circle Date Period

Find the measure of the arc or angle indicated.

1)



Inscribed ∠

$97 \times 2 = 194 = ?$

2)

$86 \times 2 = ? = 172$

3)

$2\overset{\frown}{VX} = 99 \times 2 = 198$

$198 - 180 = 118$

4)

$\overset{\frown}{ZY} = 34 \cdot 2 = 68$

diameter

$? = 180 - 68$

$? = 112$

5)

$\angle FDE = \frac{64}{2} = 32$

6)

$180 - 103 = ? = 77$

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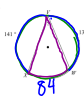
Oct 23-8:00 AM

7)

$180 - 88 = 92$

$? = \frac{92}{2} = 46$

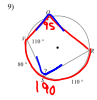
8)



$360 - 141 - 135 = 84$

$? = \frac{84}{2} = 42$

9)



$180 - 95 = 85 = ?$

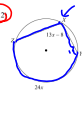
10)

$180 - 106 = 74$

Solve for x.

11)

12)



Inscribed

$13x - 8 = 2(24x)$

$13x - 8 = 48x$

$-13x \quad -13x$

$-8 = 35x$

$\frac{-8}{35} = \frac{35x}{35}$

$= x$

Find the measure of the arc or angle indicated.

13) Find $m\overset{\frown}{EG}$

14) Find $m\overset{\frown}{KL}$

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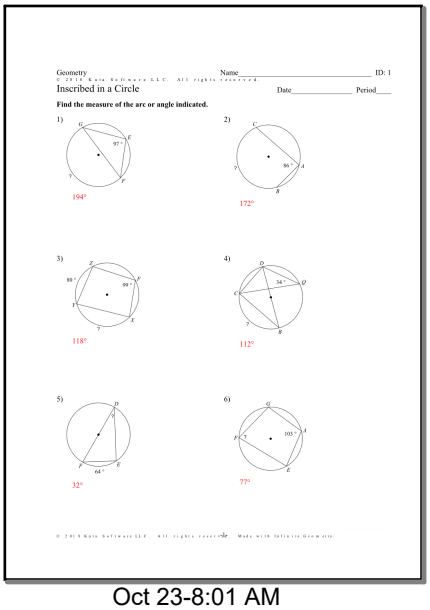
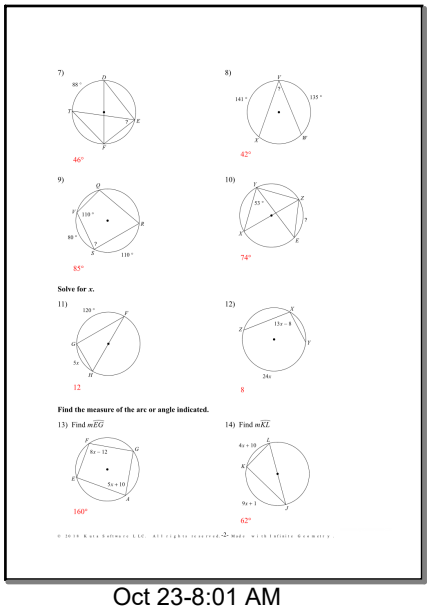
Oct 23-8:00 AM



Geometry Name ID: 1
Inscribed in a Circle Date Period
Find the measure of the arc or angle indicated.

1) 194°
2) 172°
3) 118°
4) 112°
5) 32°
6) 77°

Oct 23-8:01 AM



7) 46°
8) 42°
9) 85°
10) 74°

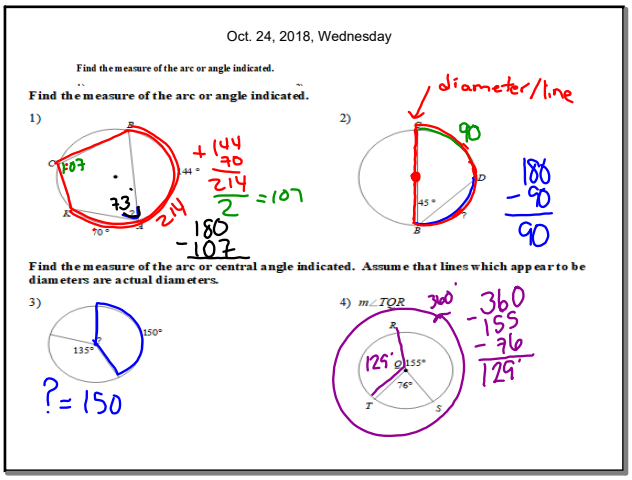
Solve for x.

11) 12
12) 8

Find the measure of the arc or angle indicated.

13) Find $m\widehat{EG}$ 160°
14) Find $m\widehat{KL}$ 62°

Oct 23-8:01 AM



Oct. 24, 2018, Wednesday

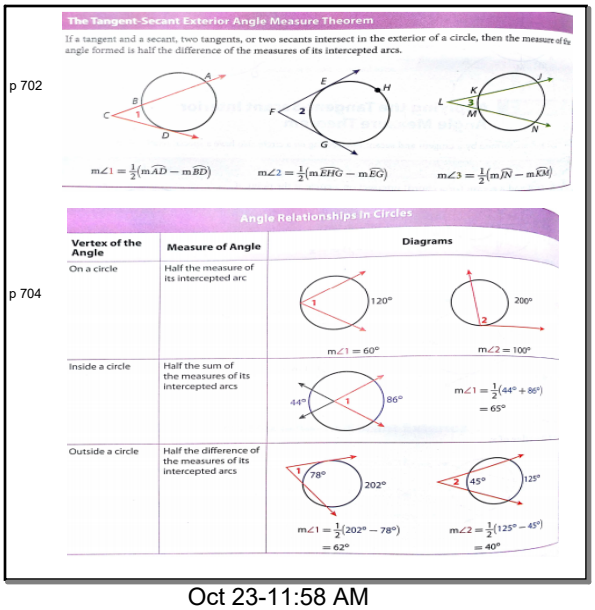
Find the measure of the arc or angle indicated.

Find the measure of the arc or angle indicated.

1) 107 + 144 / 90 / 214 / 2 = 107; 180 − 107; 73
2) diameter/line; 90; 180 − 90 = 90
3) 150°; ? = 150
4) $m\angle TQR$ 360°; 360 − 155 − 76 = 129°

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

Oct 23-11:58 AM



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.

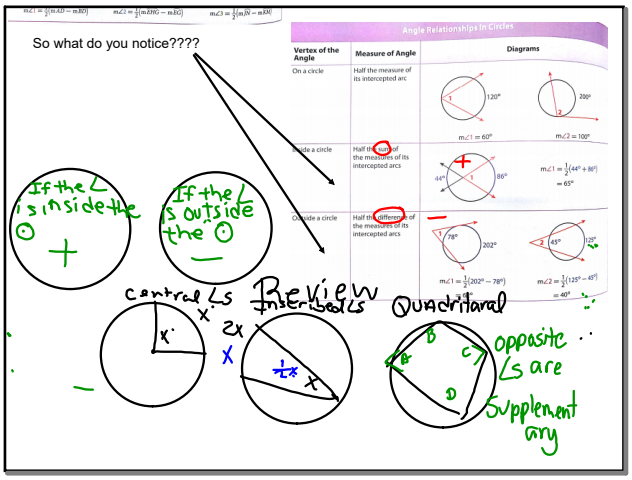
$m\angle 1 = \frac{1}{2}(m\widehat{AD} - m\widehat{BD})$ $m\angle 2 = \frac{1}{2}(m\widehat{EHG} - m\widehat{EG})$ $m\angle 3 = \frac{1}{2}(m\widehat{JN} - m\widehat{KM})$

p 704

Angle Relationships in Circles

Vertex of the Angle	Measure of Angle	Diagrams
On a circle	Half the measure of its intercepted arc	$m\angle 1 = 60°$; $m\angle 2 = 100°$
Inside a circle	Half the sum of the measures of its intercepted arcs	$m\angle 1 = \frac{1}{2}(44° + 86°) = 65°$
Outside a circle	Half the difference of the measures of its intercepted arcs	$m\angle 1 = \frac{1}{2}(202° - 78°) = 62°$; $m\angle 2 = \frac{1}{2}(125° - 45°) = 40°$

Oct 23-11:58 AM



So what do you notice????

If the ∠ is inside the ⊙ +

If the ∠ is outside the ⊙ −

Review

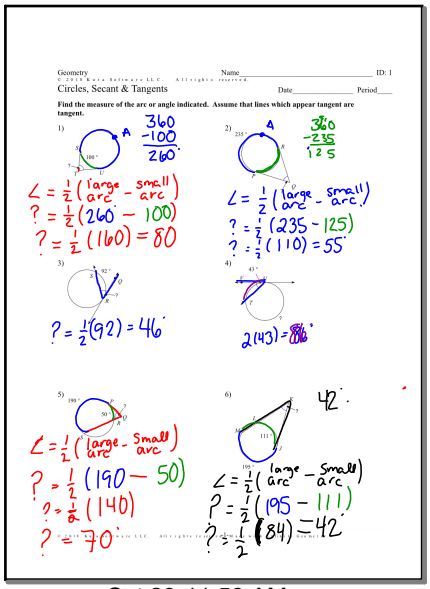
Central ∠s

Interior ∠s

Quadrilateral

opposite ∠s are supplementary

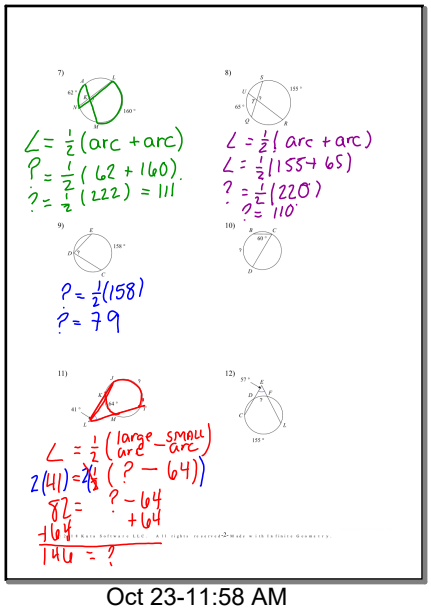
Oct 24-10:51 AM



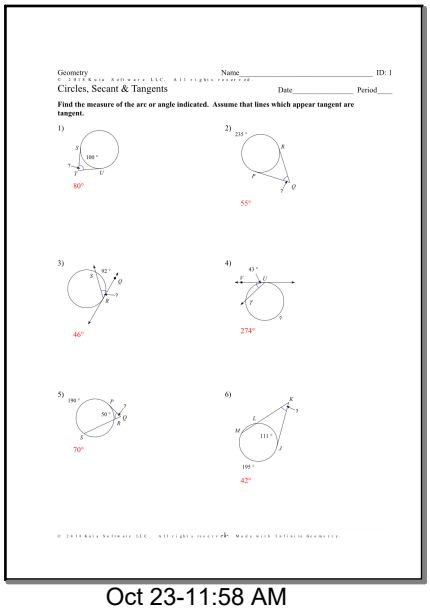
Geometry Name ID: 1
Circles, Secant & Tangents Date Period
Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1) 360 − 100 = 260; $\angle = \frac{1}{2}(\text{large arc} - \text{small arc})$; $? = \frac{1}{2}(260 - 100)$; $? = \frac{1}{2}(160) = 80$
2) 360 − 235 = 125; $\angle = \frac{1}{2}(\text{large arc} - \text{small arc})$; $? = \frac{1}{2}(235 - 125)$; $? = \frac{1}{2}(110) = 55$
3) $? = \frac{1}{2}(92) = 46$
4) $2(43) = 86$
5) $\angle = \frac{1}{2}(\text{large arc} - \text{small arc})$; $? = \frac{1}{2}(190 - 50)$; $? = \frac{1}{2}(140)$; $? = 70$
6) 42; $\angle = \frac{1}{2}(\text{large arc} - \text{small arc})$; $? = \frac{1}{2}(195 - 111)$; $? = \frac{1}{2}(84) = 42$

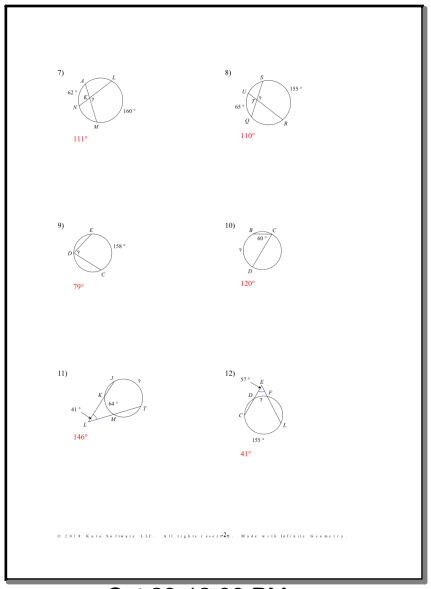
Oct 23-11:58 AM



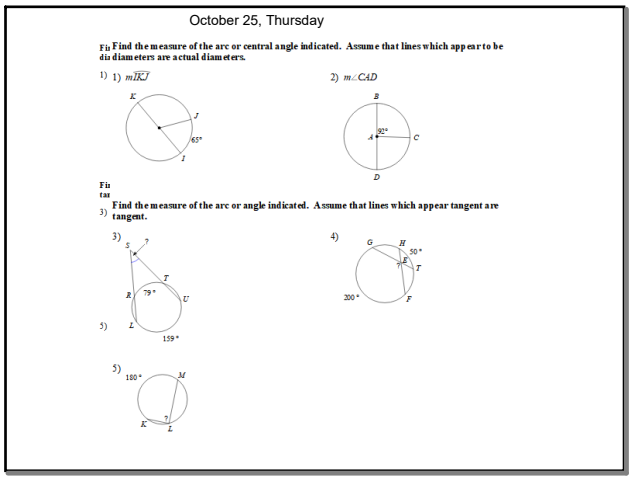
Oct 23-11:58 AM



Oct 23-11:58 AM



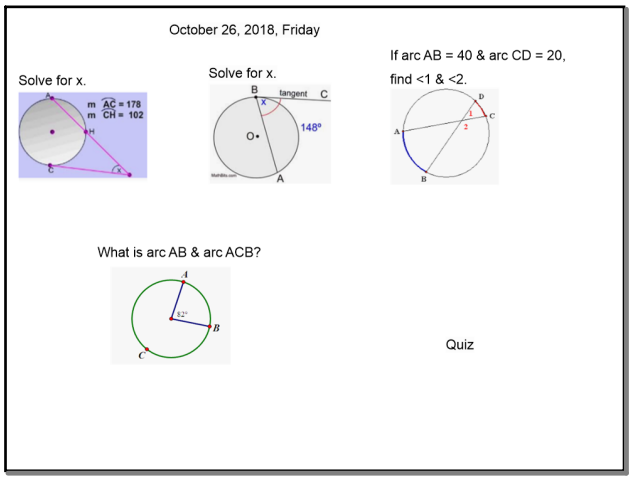
Oct 23-12:00 PM



Oct 24-12:27 PM

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

Oct 17-3:25 PM



Oct 24-12:29 PM

Geometry Name_____ ID: 1

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) 

Oct 17-3:26 PM

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

Oct 17-3:27 PM

Geometry Name_____ ID: 1

Circle circumference to arc length Date_____ Period____

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 π. Round your answer to the nearest tenth.

3) 

4) 

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) 

Oct 17-3:34 PM