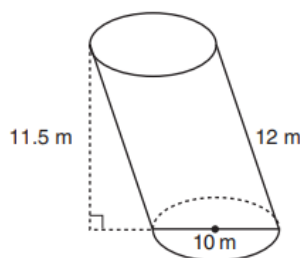
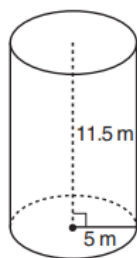


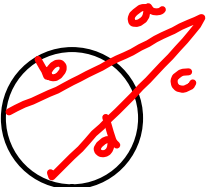



1. Put Take Home Quiz in the folder
2. Work on #25 from Aug 2017
3. Have HW 12-5 out on desk
4. Regents Review #1 Due tomorrow (There should be no reason to turn in problems with the wrong answers)


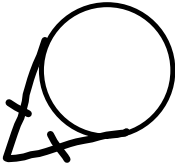
25 Sue believes that the two cylinders shown in the diagram below have equal volumes.



Is Sue correct? Explain why.

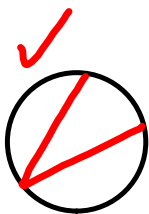
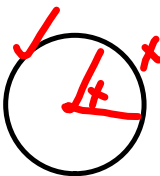



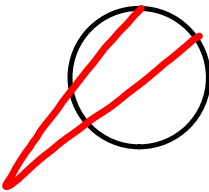
$a \cdot b = c \cdot d$ $a(a+b) = c(c+d)$



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

Segment Relationships

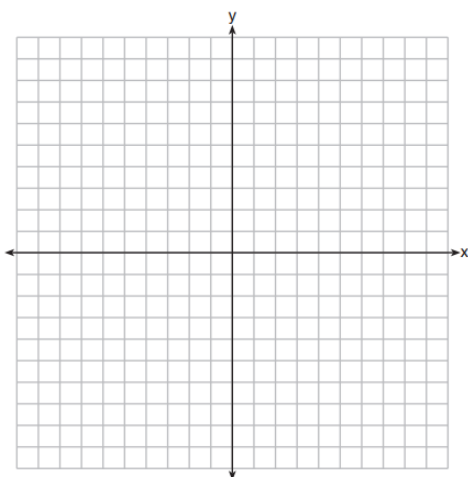




Angle Relationships

- 32 Triangle PQR has vertices $P(-3,-1)$, $Q(-1,7)$, and $R(3,3)$, and points A and B are midpoints of \overline{PQ} and \overline{RQ} , respectively. Use coordinate geometry to prove that \overline{AB} is parallel to \overline{PR} and is half the length of \overline{PR} .

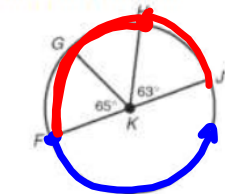
[The use of the set of axes below is optional.]



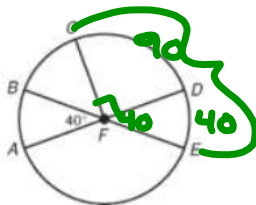
Geometry
HW 12-8

Name _____
Period _____ Date _____

Find each measure.



1. $m\widehat{HJ}$ 63°



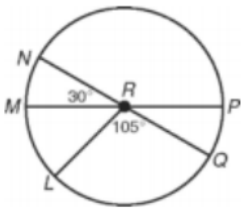
3. $m\widehat{CDE}$ 130°

2. $m\widehat{FGH}$ 117°

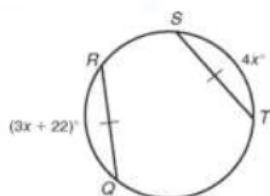
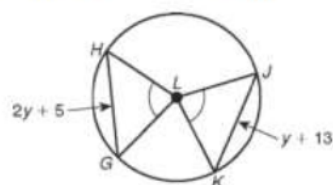
4. $m\widehat{BCD}$ 140°

5. $m\widehat{LMN}$ 75°

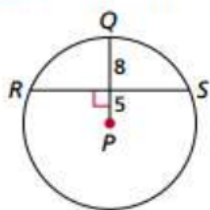
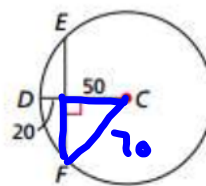
6. $m\widehat{LNP}$ 225°



Find each measure.

7. $\overline{QR} \cong \overline{ST}$. Find $m\widehat{QR}$.88°8. $\angle HLG \cong \angle KLJ$. Find \widehat{GH} .21

$$x^2 + 50^2 = 70^2$$

Multi-Step Find each length to the nearest tenth.9. RS 24.010. EF 98.0

11. Find the radius and the center of each circle:

	Radius	Center
a. $(x + 6)^2 + y^2 = 36$	<u>6</u>	<u>$(-6, 0)$</u>
b. $x^2 + (y - 7)^2 = 100$	<u>10</u>	<u>$(0, 7)$</u>

p 23

Class Notes 8: Inscribed Angles

6

Inscribed Angle Theorem

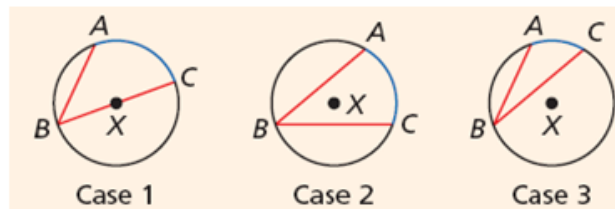
Where's the vertex??

The measure of an inscribed angle is half the measure of its intercepted arc.

$$\text{arc} \rightarrow 2 \times \angle$$

$$\angle \rightarrow \frac{1}{2} \text{ arc}$$

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

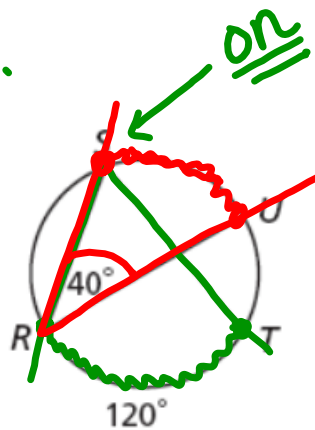


Example 1: Finding Measures of Arcs and Inscribed Angles

Find each measure.

A $m\angle RST = \frac{1}{2}(120) = 60^\circ$
 $\angle \rightarrow \frac{1}{2} \text{ arc}$

B $m\widehat{SU} = 2(40) = 80^\circ$
 $\text{arc} \rightarrow 2 \times \angle$



TRY IT!!

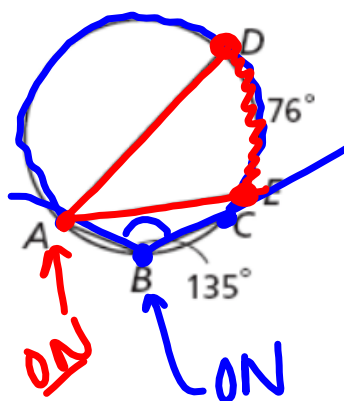
1) $m\widehat{ADC}$

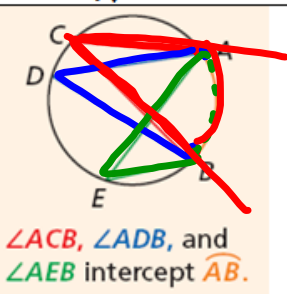
arc $\rightarrow 2 \times \angle$
 $2(135) = 270^\circ$

2) $m\angle DAE$

$\angle \rightarrow \frac{1}{2} \text{ arc}$

$\rightarrow \frac{1}{2}(76) = 38^\circ$

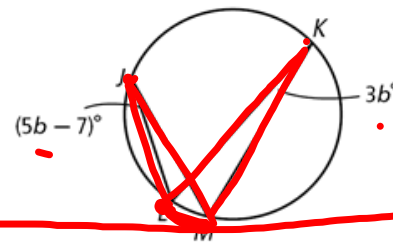


	Hypothesis	Conclusion
If inscribed angles of a circle intercept the same arc or are subtended by the same chord or arc, then the angles are congruent.	 <p>$\angle ACB$, $\angle ADB$, and $\angle AEB$ intercept \widehat{AB}.</p>	$\angle ACB \cong \angle ADB \cong \angle AEB$

Example 2: Find $m\angle LJM$.

$$5b - 7 = 3b$$

$$b = 3.5$$

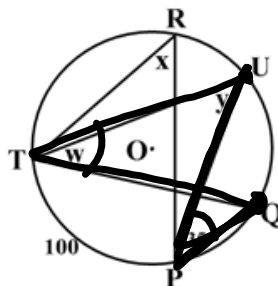


$$m\angle LJM = 5(3.5) - 7 = 10.5^\circ$$

TRY IT!!

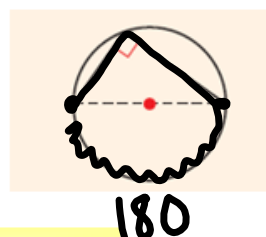
Find w , x , and y .

$$\begin{aligned} X &= 50^\circ \\ Y &= 50^\circ \\ W &= 35^\circ \end{aligned}$$



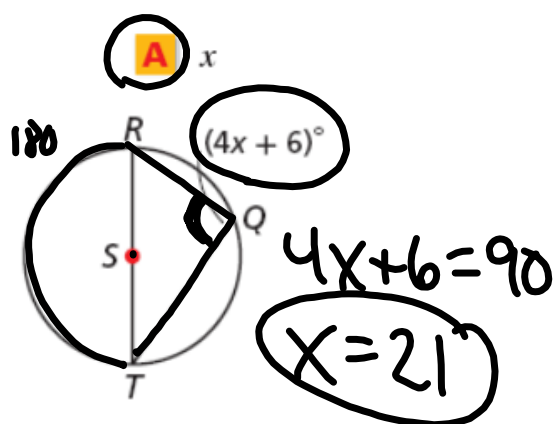
Geometry
Unit 12: Circles

***An inscribed angle subtends a semicircle if and only if the angle is a right angle.

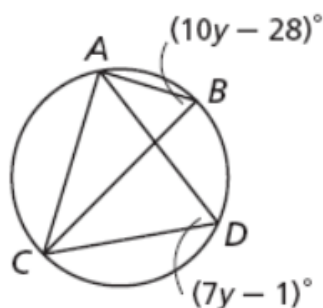


Example 3: Finding Angle Measures in Inscribed Triangles

Find each value.

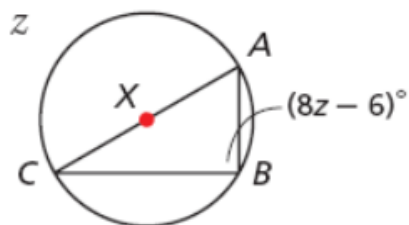


B $m\angle ADC$



TRY IT!!

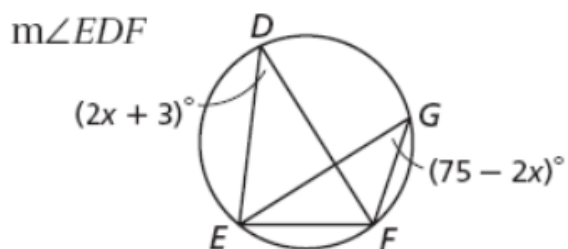
Find each value.



$$8z - 6 = 90$$

$$8z = 96$$

$$z = 12$$



$$2x + 3 = 75 - 2x \quad m\angle EDF = 2(16) + 3$$

$$4x + 3 = 75$$

$$4x = 72$$

$$x = 18$$

$$= \boxed{39^\circ}$$

