

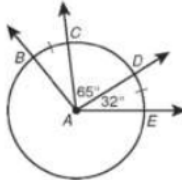
Geometry  
HW 12-26

Name \_\_\_\_\_  
Period \_\_\_\_\_ Date \_\_\_\_\_

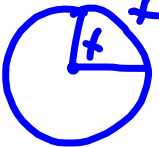

Answer the following.

- The measure of a central angle is  $60^\circ$ . What is the measure of its minor arc?  $60^\circ$
- What will be the sum of a central angle's minor arc and major arc?  $360^\circ$
- Congruent arcs have congruent chords.

Use circle A to find each measure.

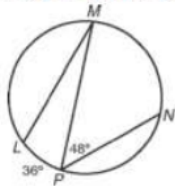


4. $m\widehat{DE}$	<u><math>32^\circ</math></u>	5. $m\widehat{CBE}$	<u><math>263^\circ</math></u>
6. $m\widehat{EBD}$	<u><math>328^\circ</math></u>	7. $m\widehat{CBD}$	<u><math>295^\circ</math></u>
8. $m\angle CAB$	<u><math>32^\circ</math></u>	9. $m\widehat{CD}$	<u><math>65^\circ</math></u>

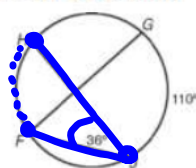
Find each measure.

1.  $m\angle LMP$  and  $m\widehat{MN}$



$18^\circ, 96^\circ$

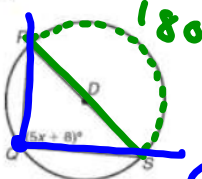
2.  $m\angle GFJ$  and  $m\widehat{FH}$



$55^\circ, 72^\circ$

Find each value.

3.  $x$

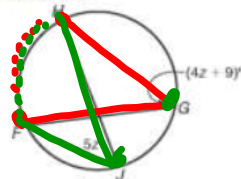


$$5x + 8 = 90$$

$82/5$

$16.4$

4.  $m\angle FJH$



$45^\circ$


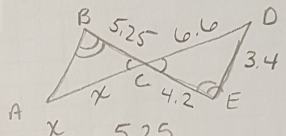
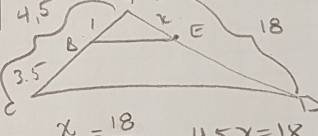
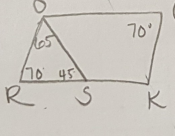
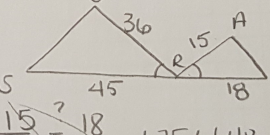
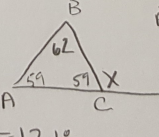
$$4z + 9 = 5z$$

$$z = 9$$

Geometry Common Core

Directions: You must show all work! Redraw diagrams when necessary. Place the problem # in the top left hand corner and write your answer in the bottom right hand corner.

Review #1

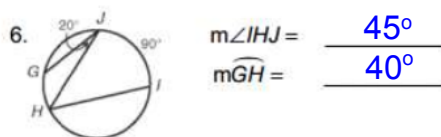
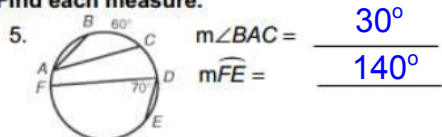
<p>1</p> <p>can't get a <math>\Delta</math> cross section from a cylinder </p>	<p>2</p> <p>A dilation is a non-rigid motion dilation <math>\rightarrow</math> similar figures</p>
<p>3</p> <p>① <math>2^2 + 4^2 = c^2</math> ② <math>P = 45</math>  <math>4 + 16 = c^2</math> <math>P = 4\sqrt{20}</math>  <math>\sqrt{20} = c</math></p> <p>square has 4 <math>\cong</math> sides  <math>\star</math> see graph paper</p>	<p>5</p>  <p><math>\frac{x}{6.6} = \frac{5.25}{4.2}</math> <math>\frac{4.2x = 34.65}{4.2}</math> <math>x = 8.25</math></p>
<p>6</p> <p>Rotation of <math>180^\circ</math> about the origin will not map the rectangle onto itself</p>	<p>7</p>  <p><math>\frac{x}{1} = \frac{18}{4.5}</math> <math>\frac{4.5x = 18}{4.5}</math>  <math>x = 4.0</math></p>
<p>8</p>  <p>① <math>180 - 70 - 65 = 45</math>  <math>\text{m}\angle KSO = 135^\circ</math>  <math>\text{m}\angle KSO = 135^\circ</math></p>	<p>9</p>  <p>These <math>\Delta</math>s are not similar  <math>\text{b/c corr. sides are not in prop.}</math>  <math>\frac{15}{36} \neq \frac{18}{45}</math>  <math>\frac{5}{12} \neq \frac{2}{5}</math>      not proportional</p>
<p>10</p> <p><math>\frac{4y}{4} = \frac{3x+7}{4}</math> <math>\rightarrow m = 3/4</math>  <math>y = \frac{3}{4}x + \frac{7}{4}</math></p> <p>① <math>3x - 4y = 9</math>  <math>-4y = -3x + 9</math>  <math>\frac{-4y}{-4} = \frac{-3x+9}{-4}</math>  <math>y = \frac{3}{4}x - \frac{9}{4}</math></p> <p>all dilated lines have the same slope  <math>\rightarrow y = \frac{3}{4}x - \frac{9}{4}</math>      same slope <math>\star</math></p>	<p>11</p>  <p><math>x = 121^\circ</math></p> <p><math>\overline{AB} \cong \overline{CB} ? \rightarrow \text{isos.} \rightarrow \cong \text{base angles}</math>  <math>\text{① } 180 - 62 = 118</math>  <math>\text{② } \frac{118}{2} = 59</math>  <math>\text{③ } 180 - 59 = 121^\circ</math></p>

Rev. #2

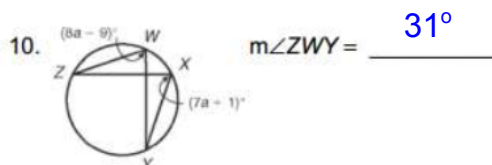
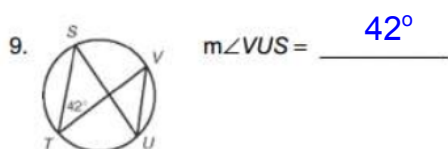
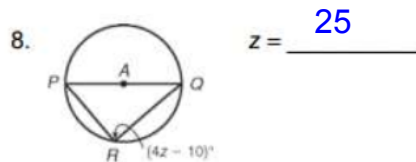
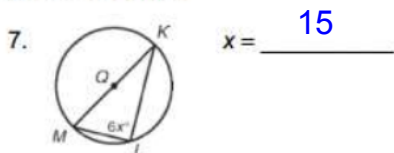
Due Tues.

4.12.20

Find each measure.



Find each value.



11. Convert the circle from General Form to Standard Form:

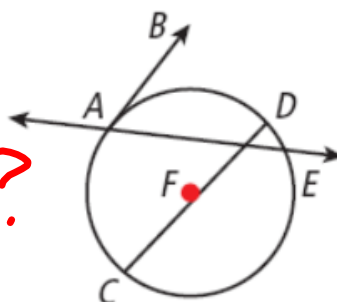
$$x^2 + y^2 + 2x + 4y - 11 = 0$$

$$(x+1)^2 + (y+2)^2 = 16$$

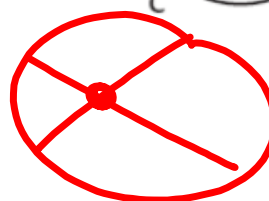
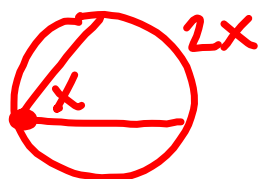
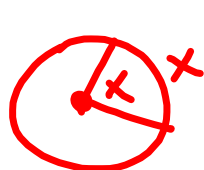
Class Notes 10: ~~10~~ Angle Relationships in Circles

Warm-up

- 1) Identify each line or segment that intersects circle F.



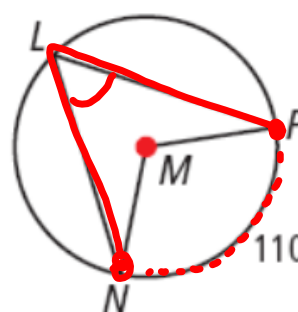
Where's the vertex?



Find each measure.

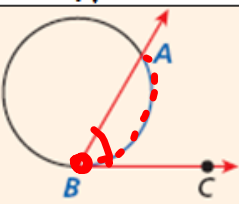
2)  $m\angle NMP$   $110^\circ$

3)  $m\angle NLP$   $55^\circ$





### ANGLES ON THE CIRCLE:

Theorem	Hypothesis	Conclusion
If a tangent and a secant (or 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.	 <p>Tangent <math>\overrightarrow{BC}</math> and secant <math>\overrightarrow{BA}</math> intersect at <math>B</math>.</p>	$m\angle ABC = \frac{1}{2} m\widehat{AB}$

#### Example 1: Using Tangent-Secant and Tangent-Chord Angles

Find each measure.

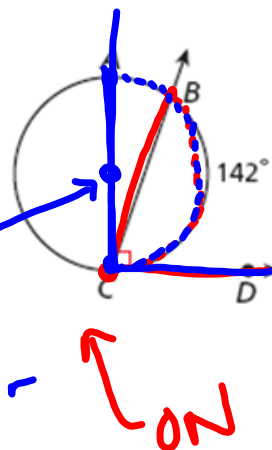
**A**  $m\angle BCD$

$$\frac{1}{2}(142) = 71^\circ$$

**B**  $m\widehat{ABC}$

$$180^\circ$$

$\overline{AC}$  is a diameter

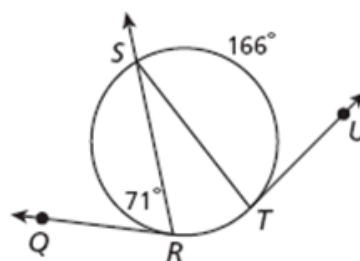


**TRY IT!!**

Find each measure.

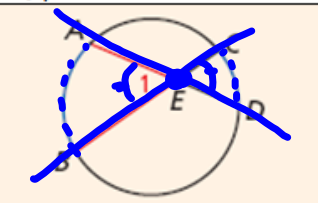
1)  $m\angle STU$

2)  $m\widehat{SR}$



# ANGLES INSIDE THE CIRCLE:

vertex  $\rightarrow$  IN

Theorem	Hypothesis	Conclusion
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.	 <p>Chords <math>\overline{AD}</math> and <math>\overline{BC}</math> intersect at <math>E</math>.</p>	$m\angle 1 = \frac{1}{2}(m\widehat{AB} + m\widehat{CD})$

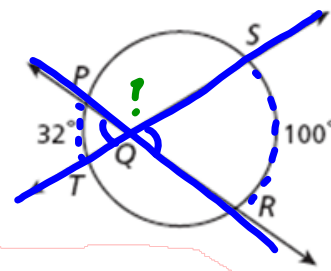
## Example 2: Finding Angle Measures Inside a Circle

Find each angle measure.

$m\angle SQR$

$$\begin{aligned}
 &= \frac{1}{2}(100 + 32) \\
 &= 66^\circ
 \end{aligned}$$

$$m\angle PQS = \frac{180 - 66}{2} = 114^\circ$$



TRY IT!!

Where's the vertex?

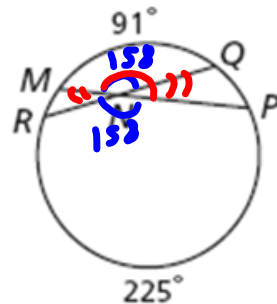
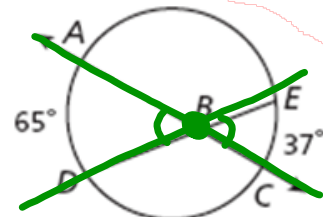
Find each angle measure.

1)  $m\angle ABD$ 

$$= \frac{1}{2}(65 + 37)$$

$$= \frac{1}{2}(102)$$

$$m\angle ABD = 51^\circ$$



$$2) m\angle RNM = \frac{1}{2}(91 + 225)$$

$$= 158$$

$$m\angle RNM = 180 - 158 = 22^\circ$$

12-7

X top  
2 quest  
on back

