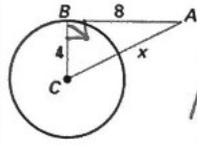
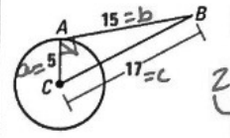
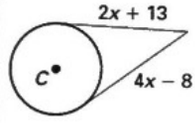
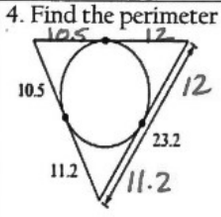
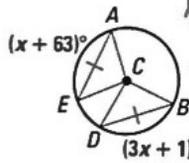
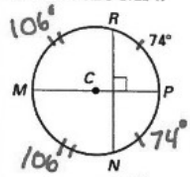
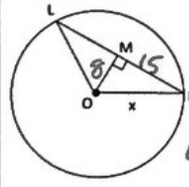
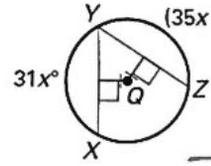
GSE Geometry
Unit 5B

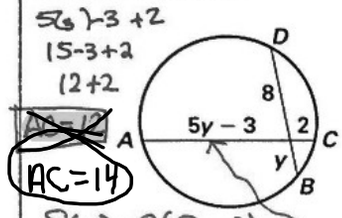
Name:_____
Date:_____ Block:_____

Circles B - Unit Review

What you need to know & be able to do	Examples	
Tangent Properties	1. Find the value of x if AB is tangent to Circle C.  $a^2+b^2=c^2$ $4^2+8^2=x^2$ $16+64=x^2$ $\sqrt{80}=\sqrt{x^2}$ $X=8.9$	2. Tell whether $\overline{AB}$ is tangent to $\odot C$. Explain your reasoning.  $5^2+15^2=17^2$ $25+225=289$ $250 \neq 289$ no
	3. Find the value of x.  $2x+3=4x-8$ $+8 \quad -2x$ $\frac{21}{2}=\frac{2x}{2}$ $X=10.5$	4. Find the perimeter  $12(2)=24$ $11.2(2)=22.4$ $10.5(2)=21$ 67.4
Chord Properties	5. Solve for x.  $x+63=3x+1$ $-1 \quad -x$ $\frac{62}{2}=\frac{2x}{2}$ $X=31$	6. Find arc MN.  $74+74=148$ $360-148=212$ $\frac{212}{2}=106°$ $MN=106$
	7. In $\odot O$, MO = 8 and LN = 30. Find x.  $8^2+15^2=x^2$ $64+225$ $\sqrt{289}=\sqrt{x^2}$ $17=x$	8. Solve for x.  $35x-16=31x$ $-35x$ $\frac{-16}{-4}=\frac{-4x}{-4}$ $4=x$

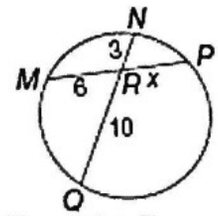
1. Find the length of segments if the segments are in the inside of the circle.

9. Find the length of $\overline{AC}$.



5y−3+2
15−3+2
12+2
~~AC=12~~
AC=14
8(y)=2(5y−3)
8y=10y−6
−10y
−2y=−6/−2
y=3

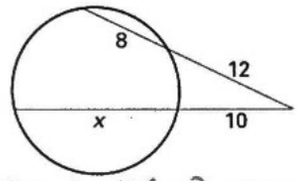
10. Find the value of x.



6(8)=3(10)
6x=30/6
x=5

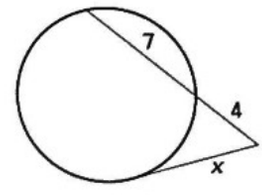
2. Find the length of segments if the segments are outside of the circle.

11. Find the value of x.



10(x+10)=12(20)
10x+100=240
−100
10x=140/10
x=14

12. Find the value of x.



x·x=4(11)
$\sqrt{x^2}=\sqrt{44}$
x=6.6

3. Find the circumference of circles.

2·π·r
πd

13. Find the circumference of a circle with a radius of 8 ft. *Leave in terms of pi*

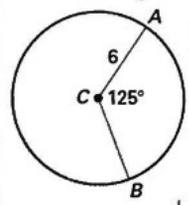
C=2·π·8
C=16π

14. The circumference of a circle is 25 m. What is the diameter?

25=πd/π π
7.9 or 8=d

4. Find arc lengths.

7. Find the length of $\widehat{AB}$. *Leave in terms of pi*

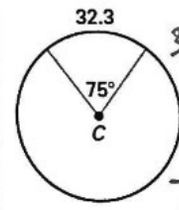


$A_L=\frac{2\cdot\pi\cdot6\cdot125}{360}$

$\frac{1500\pi}{360}$

4.2π or $\frac{25}{6}\pi$

8. Find the radius.



$36\cdot32.3=\frac{2\cdot\pi\cdot r\cdot75}{360}$

$\frac{1162.8}{471.2}=\frac{471.2r}{471.2}$

24=r