# Mrs. Warfel's

## Geometry Packet

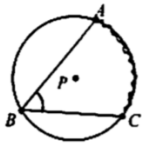
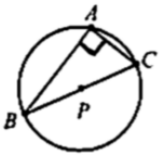
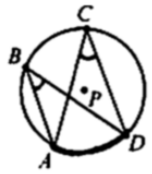
## for May 11th – May 22nd

If you have access to the internet, please visit my website to watch the videos that go along with the worksheets. Do all of the "Extra Practice Problems" online using the links from my website.

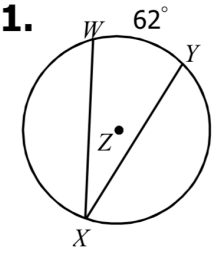
Also, if you have access to the internet, do the QUIZIZZ online. The codes are on my website.

https://warfelb.wixsite.com/mrswarfelscms/home-1

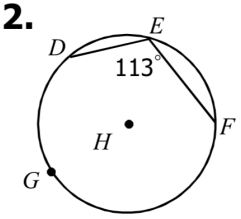
Inscribed Angles Notes/Practice Name: _____

| | |
|---|---|
| **Inscribed Angles**<br>  <br><br>$m\angle ABC = \frac{1}{2} m\overset{\frown}{AC}$ | • An **inscribed angle** is an angle with its vertex on the circle with two sides that are chords.<br>• An **intercepted arc** is the arc that lies between the endpoints of an inscribed angle.<br>• The **degree of the inscribed angle** is equal to half the measure of its **intercepted arc**. |
| **Intercepting a Diameter** |  <br><br>If an inscribed angle **intercepts a diameter**, then then it is a right angle.<br>$m\angle BAC =$ 90° |
| **Overlapping Arcs** |  <br><br>If two inscribed angles intercept the **same arc**, then the angles are congruent.<br>$m\angle ABD =$ m<ACD |

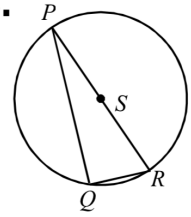
Directions: Find the measures of the angles and arcs below.

**1.**


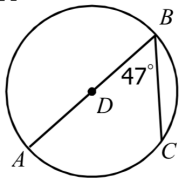
$m\angle WXY$ = _____

**2.**


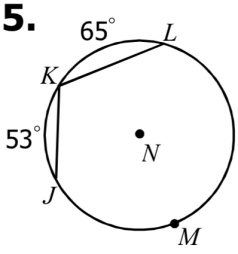
$m\overset{\frown}{DGF}$ = _____

**3.**


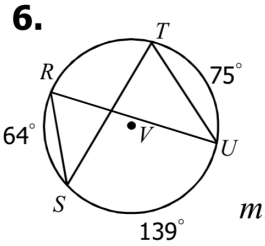
$m\angle PQR$ = _____

**4.**


$m\overset{\frown}{BC}$ = _____

**5.**


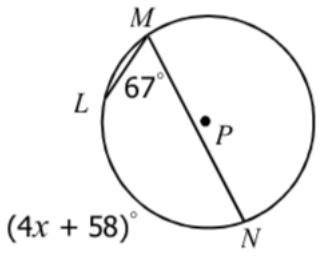
$m\angle JKL$ = _____

**6.**


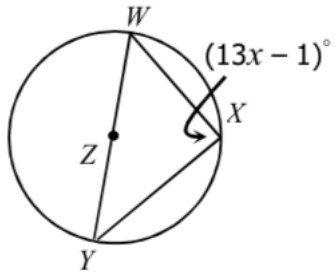
$m\angle RST$ = _____

$m\angle RUT$ = _____

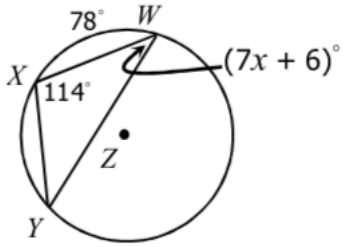
**7.** Solve for x.



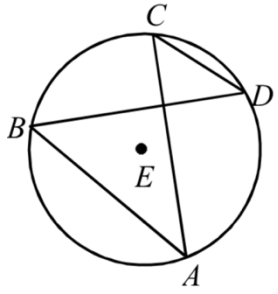

**8.** Solve for x.




**9.** Solve for x.



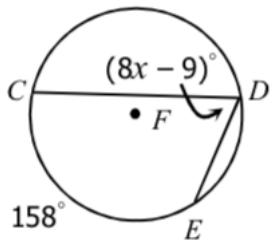

**10.** If $m\angle ABD = (6x + 26)^\circ$ and $m\angle ACD = (13x - 9)^\circ$, find $m\overset{\frown}{AD}$.



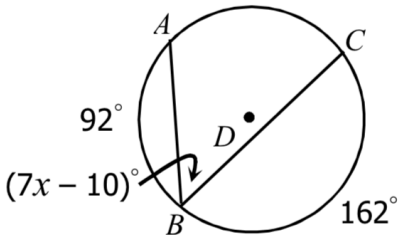
Inscribed Angles **FORMS QUESTIONS**

**IF YOU HAVE THE INTERNET, CLICK THE LINK ON MY WEBSITE TO DO THESE QUESTIONS. PLEASE DO NOT TURN THIS PAPER IN, IF YOU HAVE THE INTERNET!**

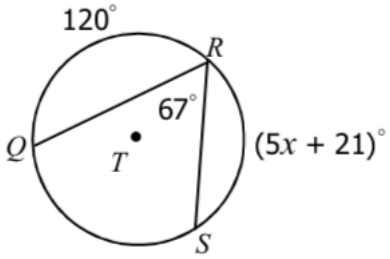
Solve for x.



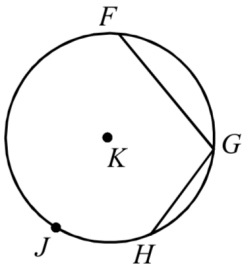

Solve for x.



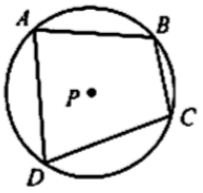

Solve for x.




If $m\angle FGH = (6x + 21)^\circ$ and $m\overset{\frown}{FJH} = (17x - 28)^\circ$, find $m\overset{\frown}{FJH}$.



Inscribed Quadrilateral Notes/Practice Name: _____

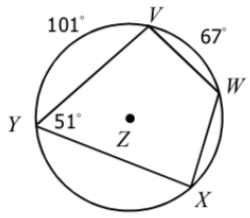



If a quadrilateral is inscribed in a circle, then its opposite angles are Supplementary.

$m\angle A + m\angle C = 180^\circ$ and $m\angle B + m\angle D = 180^\circ$

Directions: Solve for each value or measure.

1.

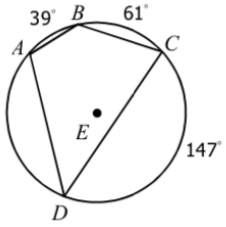



$m\angle V =$ _____

$m\angle W =$ _____

$m\angle X =$ _____

2.



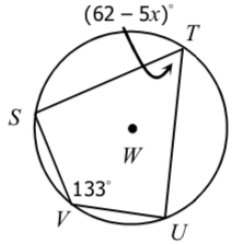

$m\angle A =$ _____

$m\angle B =$ _____

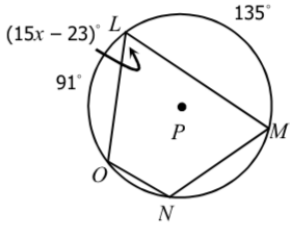
$m\angle C =$ _____

$m\angle D =$ _____

3. Solve for x.



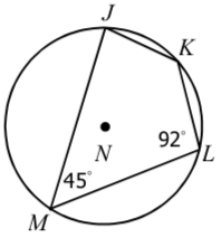

4. Solve for x.



Inscribed Quadrilaterals **FORMS QUESTIONS**

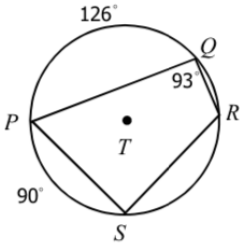
**IF YOU HAVE THE INTERNET, CLICK THE LINK ON MY WEBSITE TO DO THESE QUESTIONS. PLEASE DO NOT TURN THIS PAPER IN, IF YOU HAVE THE INTERNET!**

Directions: Solve for each value or measure.




$m\angle J =$ _____

$m\angle K =$ _____

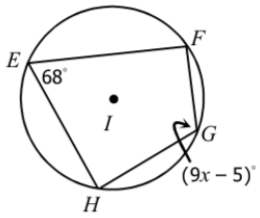



$m\angle P =$ _____

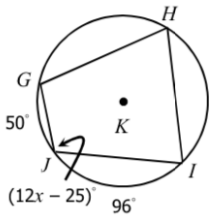
$m\angle R =$ _____

$m\angle S =$ _____

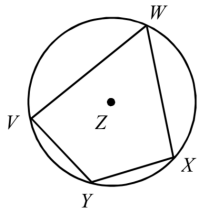
Solve for x.




Solve for x.




If $m\angle W = (5x + 1)^\circ$ and $m\angle Y = (13x - 37)^\circ$, find $m\angle Y$.

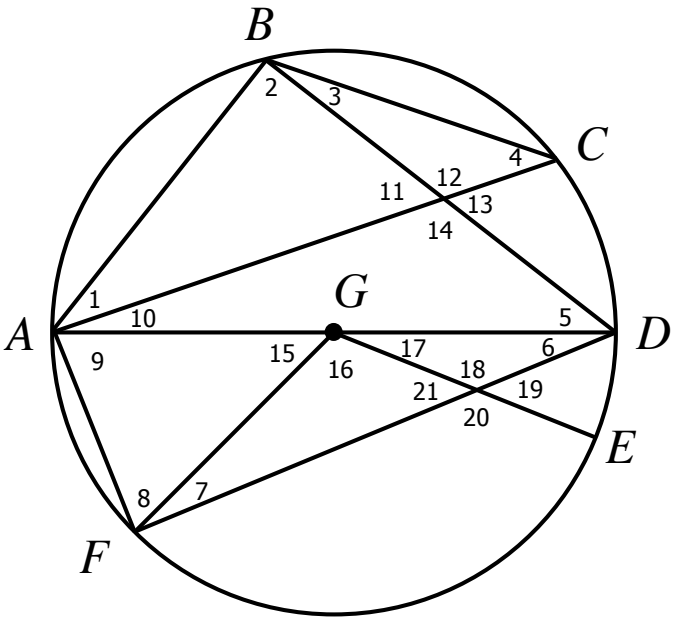


This is an OPTIONAL EXTRA CREDIT assignment!

You do NOT have to do it.

# The Giant Circle CHALLENGE!

Name: _____




Given: $G$ is the center of the circle
$\overline{AD}$ is a diameter, $m\overset{\frown}{AB} = 78^\circ$,
$m\overset{\frown}{FE} = 105^\circ$, $m\overset{\frown}{ED} = 27^\circ$, $m\overset{\frown}{CD} = 42^\circ$

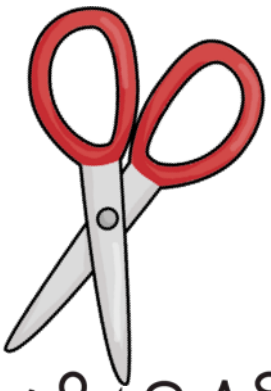
## Find each angle measure!

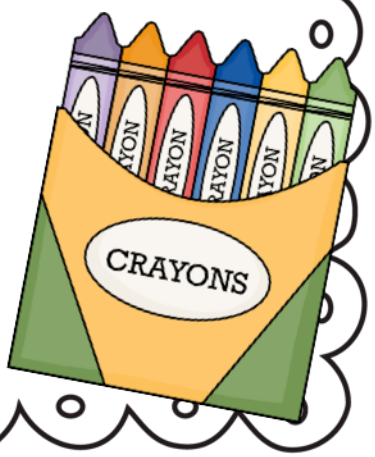
$m\angle 1 =$ _____
$m\angle 2 =$ _____
$m\angle 3 =$ _____
$m\angle 4 =$ _____
$m\angle 5 =$ _____
$m\angle 6 =$ _____
$m\angle 7 =$ _____
$m\angle 8 =$ _____
$m\angle 9 =$ _____
$m\angle 10 =$ _____
$m\angle 11 =$ _____
$m\angle 12 =$ _____
$m\angle 13 =$ _____
$m\angle 14 =$ _____
$m\angle 15 =$ _____
$m\angle 16 =$ _____
$m\angle 17 =$ _____
$m\angle 18 =$ _____
$m\angle 19 =$ _____
$m\angle 20 =$ _____
$m\angle 21 =$ _____



The next assignment is for Teacher Appreciation Week. There are multiple option online, but if you want to do the one on the next page, I'll make sure to give it to the teacher you write it to!

# I love my TEACHER



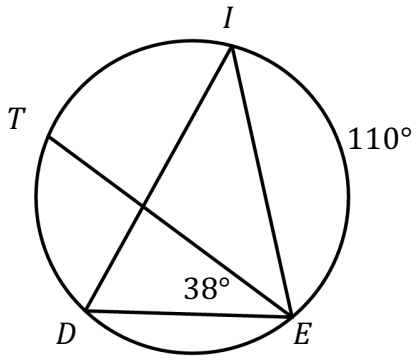
Name _____ Date_____

**Inscribed Angles - Independent Practice - Part 1 with VIDEO**

1. Consider the circle to the right.

   *Part A:* Determine $\boldsymbol{m\angle IDE}$.

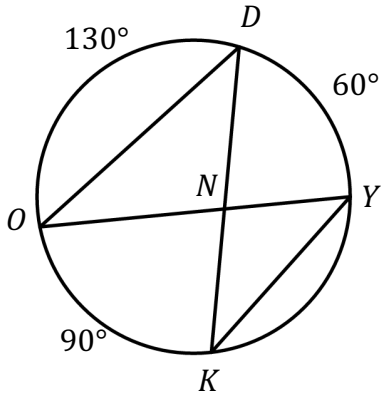
   *Part B:* Determine $\boldsymbol{m\widehat{TD}}$.




2. Consider the circle to the right.

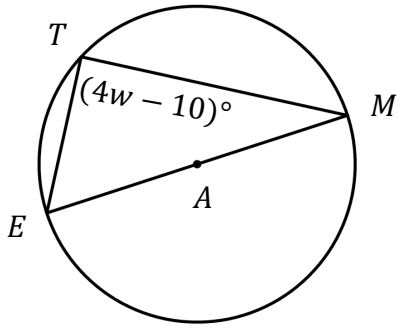
   Determine $\boldsymbol{m\angle KNY}$.

   A $\mathbf{30°}$
   B $\mathbf{45°}$
   C $\mathbf{65°}$
   D $\mathbf{105°}$




3. Consider the circle below.

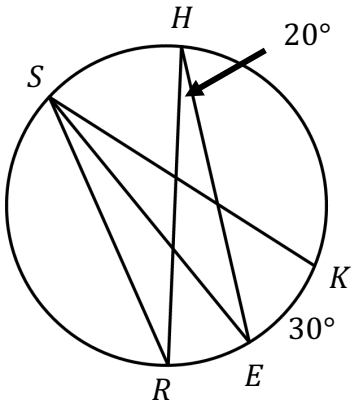
   Determine the value of $\boldsymbol{w}$.



4. Consider the circle on the right, where $\boldsymbol{m\angle RHE = 20°}$ and $\boldsymbol{m\widehat{EK} = 30°}$

   Determine $\boldsymbol{m\angle RSK}$.

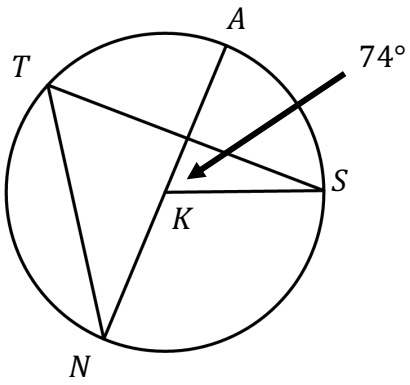
   A $\mathbf{25°}$
   B $\mathbf{35°}$
   C $\mathbf{50°}$
   D $\mathbf{70°}$




5. Consider circle $\boldsymbol{K}$ on the right, where $\boldsymbol{m\angle SKA = 74°}$.

   Determine $\boldsymbol{m\angle NTS}$.

   A $\mathbf{37°}$
   B $\mathbf{74°}$
   C $\mathbf{53°}$
   D $\mathbf{106°}$



Inscribed Angles – Independent Practice – Part 2 **FORMS QUESTIONS**

**IF YOU HAVE THE INTERNET, CLICK THE LINK ON MY WEBSITE TO DO THESE QUESTIONS.**
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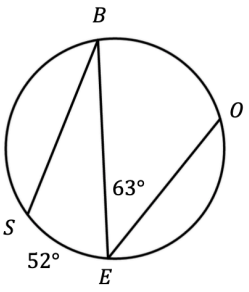
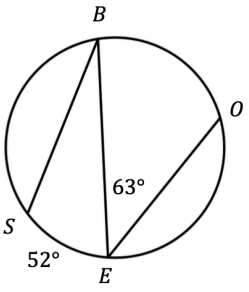
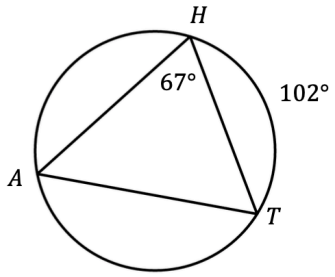
1. Determine $m\angle SBE$.




2. Determine $m\widehat{OB}$.

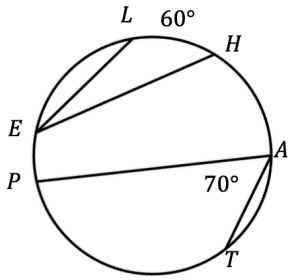



3. What is $m\angle HTA$?

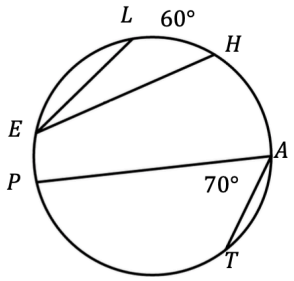



A **51°**
B **67°**
C **62°**
D **102°**

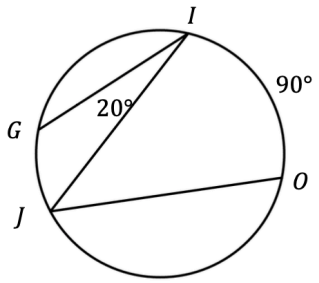
4. Determine $m\angle LEH$.



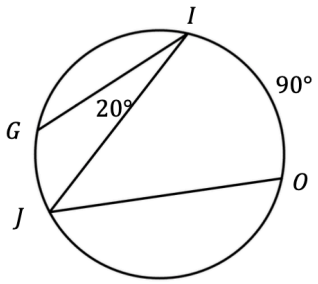

5. Determine $m\widehat{PT}$.



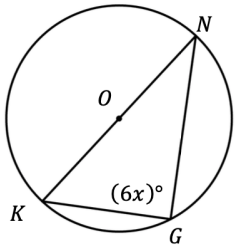

6. Determine $m\angle IJO$.



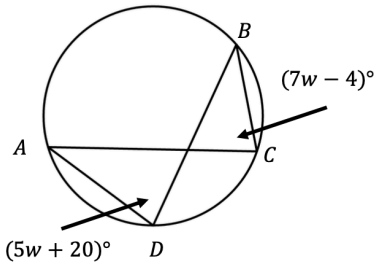
7. Determine $\boldsymbol{m\widehat{GJ}}$.




8. Determine the value of $\boldsymbol{x}$.



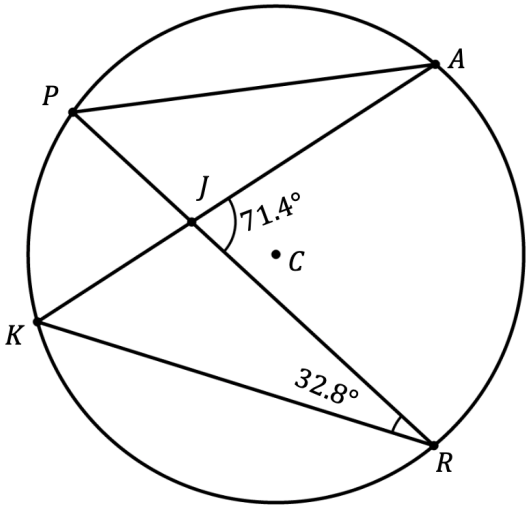

9. Determine $\boldsymbol{m\widehat{AB}}$.



Inscribed Angles – CHALLENGE PROBLEM **FORMS QUESTIONS**

**IF YOU HAVE THE INTERNET, CLICK THE LINK ON MY WEBSITE TO DO THESE QUESTIONS. PLEASE DO NOT TURN THIS PAPER IN, IF YOU HAVE THE INTERNET!**

What's the measure of minor arc AR?

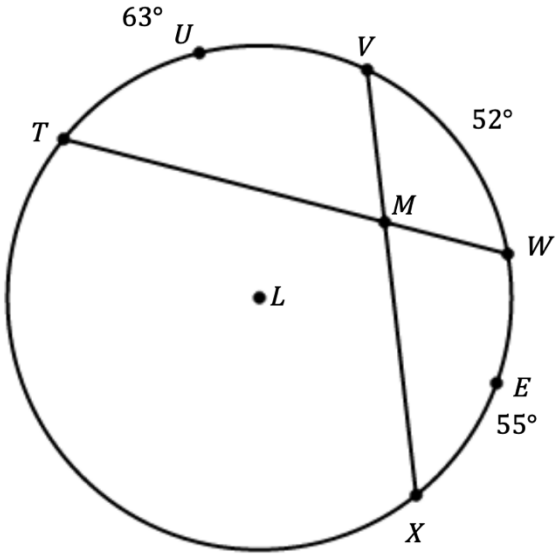


Inscribed Angles – EXTRA CREDIT **FORMS QUESTION**

**IF YOU HAVE THE INTERNET, CLICK THE LINK ON MY WEBSITE TO DO THESE QUESTIONS. PLEASE DO NOT TURN THIS PAPER IN, IF YOU HAVE THE INTERNET!**

Consider circle L below with the following:

- Minor Arc TV measures 63˚
- Minor Arc VW measures 52˚
- Minor Arc WX measures 55˚

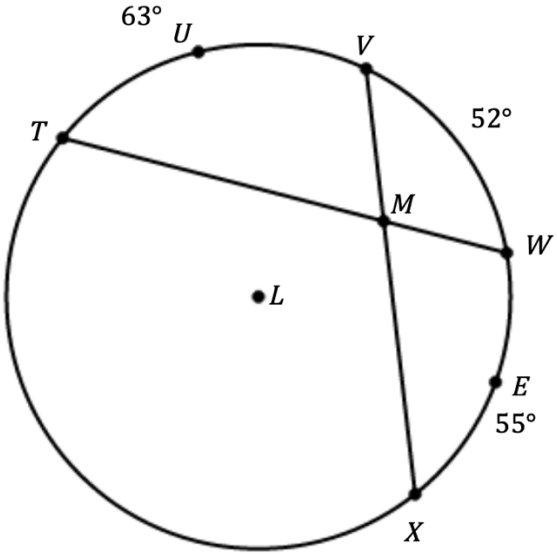



**Find the measure of $\angle VMW$.**

*Hint: You can add segments to create inscribed angles that are not already drawn on the circle.

Consider circle L below with the following:

- Minor Arc TV measures 63˚
- Minor Arc VW measures 52˚
- Minor Arc WX measures 55˚




**Find the measure of $\angle VMT$.**

*Hint: You can add segments to create inscribed angles that are not already drawn on the circle.