Inscribed Angles



mZABC = 1 M AC

- An **inscribed angle** is an angle with its vertex <u>ON</u> the circle with two sides that are <u>Chords</u>
- An intercepted arc is the arc that lies between the CND points of an inscribed angle.
- The degree of the inscribed angle is equal to $\frac{\text{half}}{\text{the measure}}$ of its intercepted arc.

Intercepting a Diameter



If an inscribed angle intercepts a diameter, then then it is a <u>viaht</u> angle.

$$m\angle BAC = \frac{90^{\circ}}{}$$

Overlapping Arcs



If two inscribed angles intercept the same arc, then the angles are <u>CDNAMENT</u>.

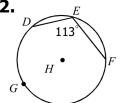
$$m \angle ABD = \underline{M} \angle ACD$$

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

1. w 62°

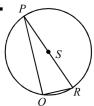
 $m \angle WXY =$

2.



mDGF =

3.



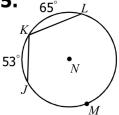
 $m\angle PQR = \underline{\hspace{1cm}}$

4.



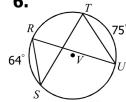
 $\widehat{mBC} = \underline{\hspace{1cm}}$

5.

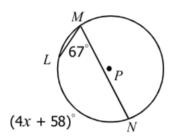


 $m \angle JKL =$

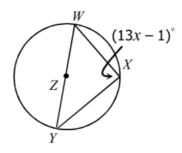
6.



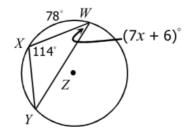
 $m\angle RST =$ 139° $m \angle RUT =$ 7. Solve for x.



8. Solve for x.



9. Solve for x.



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

