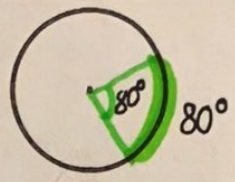
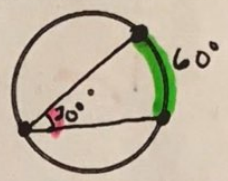
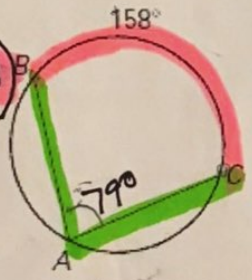
Name: Key Date: _____

Inscribed Angles

vertex is on the **center** of the circle	Central angle m∠Central Angle = m Arc	
vertex is on the **edge** of the circle	inscribed angle m∠ = ½ arc 2 m∠ = arc	

Solve for the indicated angle or arc.

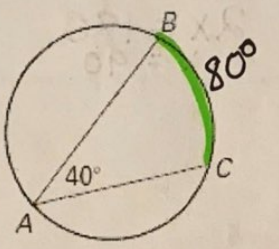
1. $m\angle A$



$m\angle = \frac{1}{2}(158)$

$m\angle = 79°$

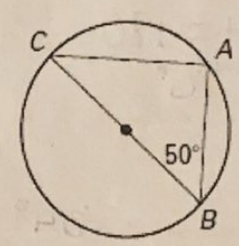
2. $\overset{\frown}{mBC}$



$2 \cdot m\angle = arc$

$2 \cdot 40° = 80°$

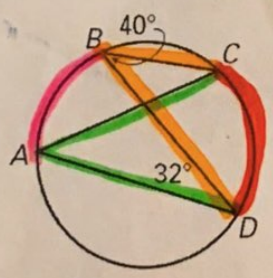
3. $m\angle C$



If two angles intercept the same arc...	The 2 ∠s are congruent m∠1 = m∠2	

Find the measure of angle A and angle C.

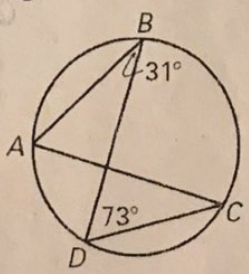
4.



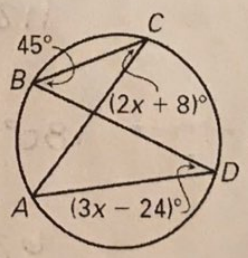
$\angle B = 40° = \angle A$

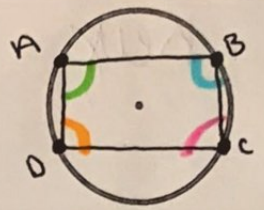
$\angle C = \angle D = 32°$

5.

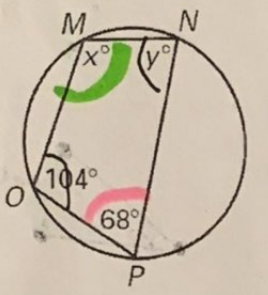


6.



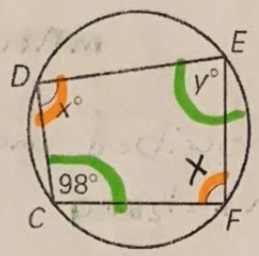
If a quadrilateral is inscribed in a circle...	Opposite ∠s are supplementary (180) ∠A + ∠C = 180 ∠B + ∠D = 180	

Solve for x and y.

7. 

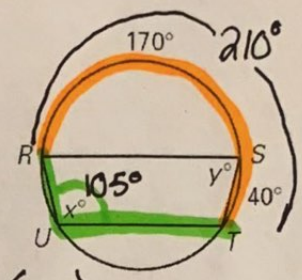
$x + 68 = 180$
$x = 112°$

$y + 104 = 180$
$y = 76°$

8. 

$98 + y = 180$
$y = 82$

$x + X = 180$
$2x = 180$
$x = 90$

9. 

$X = \frac{1}{2}(\text{arc})$
$X = \frac{1}{2}(210)$
$X = 105°$

More Practice!

10. $m\angle PNO =$ 34°

11. $m\angle QNP =$ 31°

12. $m\overset{\frown}{PQ} =$ 62°

13. $m\overset{\frown}{QO} =$ 130°

14. $m\angle NMO =$ 112°

15. $m\overset{\frown}{NOP} =$ 180°

16. $m\angle QMP =$ 62°

17. $m\overset{\frown}{OQN} =$ 248°