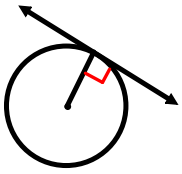
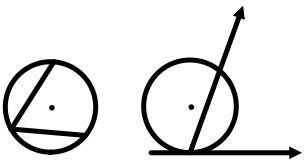
"Formulas"--They will not be provided tomorrow!!!!!



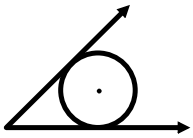
The Angle formed by the intersection of a radius and a tangent to a circle is 90^0

Central Angle:
$Angle^0 = Arc^0$

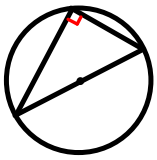


Inscribed or Tangent-Secant Angle:
$Angle^0 = \frac{1}{2}\ Arc^0$

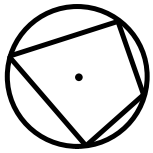
Angle ⇒ Arc x2
Arc ⇒ Angle ÷2



Tangent-Tangent Angle:
$Angle^0 = 1/2(Major\ Arc^0 - Minor\ Arc^0)$



If one side of an inscribed triangle is the diameter of the circle, then the triangle is a right triangle



Opposite angles in an inscribed quadrilateral are supplementary

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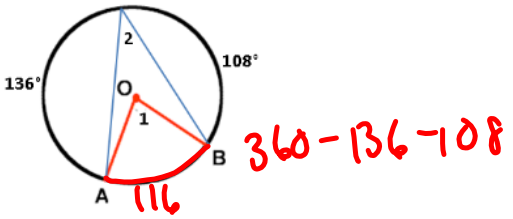
G.C.2, G.C.3

Date:_____ Per.:_____

1. Find the measure of ∠1 and ∠2.



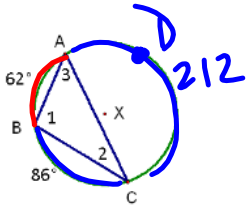
m∠1 = 116⁰ m ∠2 = 58⁰

∠1 is a central angle ∠2 is a inscribed angle

Describe the relationship between the angle measures.

The central angle (<1) is twice the measure of the inscribed angle (<2) that intersects the same arc

2. Find the measures of ∠1, ∠2 and ∠3.

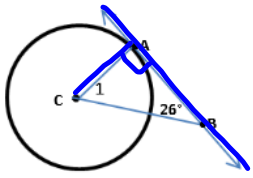


m∠1 = 106⁰ m ∠2 = 31⁰ m∠3 = 43⁰

Describe how to find the angle measures.

m<2 is half the measure of arc AB; m<3 is half the measure of arc BC; m<1 is half the measure of (major) arc AC

3. Find the measure of ∠1



m∠1 = 64⁰

Describe how to find the angle measures.

m<BAC = 90⁰ (tangent intersects the radius)
m<1 + 26⁰ + 90⁰ = 180⁰

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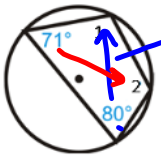
4. Find the measure of ∠1 and ∠2.



100? TO 180°

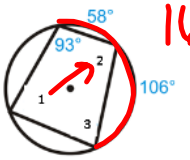
71° + ∠2 = 180

m∠1 = 100° ∠2 = 109°

Describe how to find the angle measures.

Opposite angles in an inscribed quadrilateral are supplementary

5. Find the measures of ∠1, ∠2 and ∠3.



164°

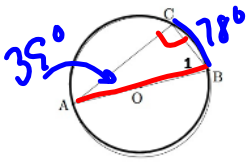
∠1 + ∠2 = 180°

m∠1 = 82° m ∠2 = 98° m∠3 = 87°

Describe how to find the angle measures.

<3 is supplementary to 93°; m<1 is half of 58 + 106;
<2 is supplementary to <1

6. Find the measure of ∠1 if the mCB = 78°



35°

78°

m∠1 = 51°

Describe how to find the angle measure.

Triangle ABC is inscribed in circle O, so m<C = 90°; m<A is half of 78° (39)
<1 is complementary to <A

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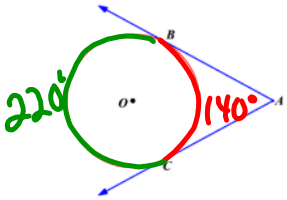
7. Find the measure of ∠A if the measure of arc CB is 140°.



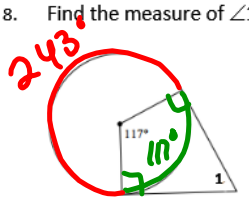
$m\angle A = \frac{1}{2}(220° - 140°)$

m∠A = 40°

Describe how to find the angle measure.

m<A is half of the measure of the difference of the Major arc and Minor arc

8. Find the measure of ∠1.



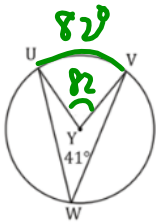
$m\angle 1 = \frac{1}{2}(243 - 117)$

m∠1 = 63°

Describe how to find the angle measure.

The smaller arc is 117°; the larger arc is 243°. m<1 is half the difference of the two arcs.

9. Find the measure of ∠UYV



m∠UYV = 82°

Describe how to find the angle measure.

Arc UV is twice the measure of <UWV. The measure of <UYV is equal to the measure of arc UV (central angle).

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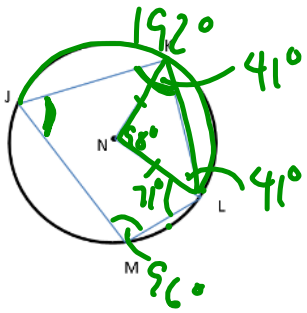
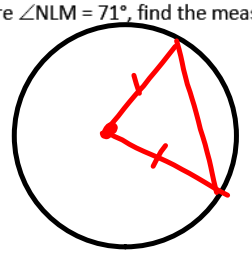
10. If the measure of ∠KNL is 98°, the measure of arc JKL is 192° and the measure ∠NLM = 71°, find the measures of the angles indicate below.

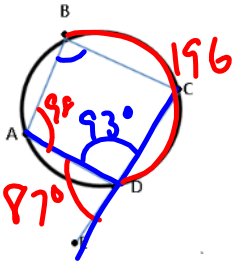
$180 - 98 = 82°$





m∠MJK = 68° m∠JKL = 84° m∠KLM = ~~224°~~ 112° m∠LMJ ~~m∠LMK~~ = 96°

11. If the m∠ADE is 87° and the measure of arc BCD is 196° , find the measures of the angles indicated below.



m∠ABC = 87°, m∠BCD= 82°, m∠CDA = 93°, m∠DAB = 98°