Angle Relationships Using a Circle

~ 1 ~

1. A ___ angle is an angle whose measure is equal to half its intercepted arc.

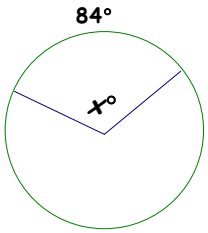
A. Central B. Inscribed
C. Interior D. Exterior

2. To find the measure of an angle formed when two chords intersect in the interior of a circle, you must ___ the arcs and divide by 2.

A. add B. subtract
C. multiply D. divide

Find the value of x. (3-8)

3.



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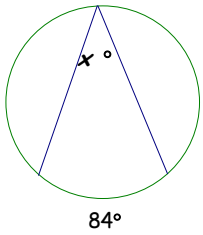

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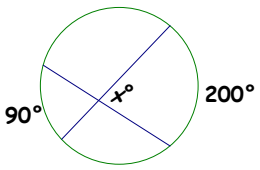

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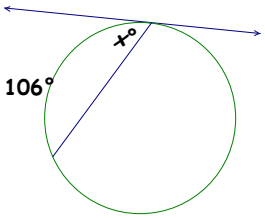

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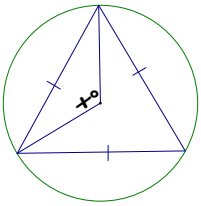

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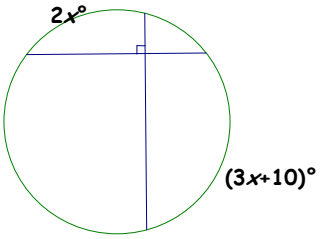
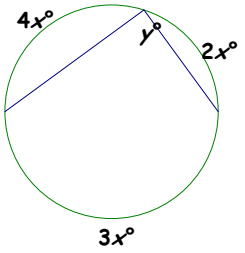


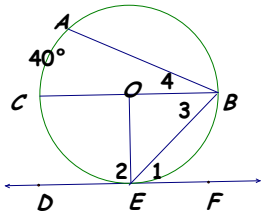
9. Find the values of *x* and *y*.



Angle Relationships Using a Circle

~ 2 ~

10. In the figure below $\overleftrightarrow{DF}$ is tangent to $\odot O$ at E and $\overline{CB}$ is a diameter.

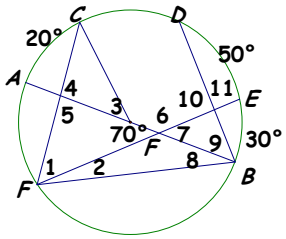


What are the measures of the following:

$m\angle 1 =$
$m\angle 2 =$
$m\angle 3 =$
$m\angle 4 =$

$m\overset{\frown}{AB} =$
$m\overset{\frown}{BE} =$
$m\overset{\frown}{CE} =$

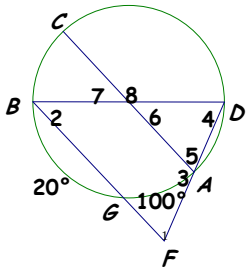
11. $\overline{AB}$ is a diameter in $\odot F$ below.



What are the measures of the following?

$m\angle 1 =$
$m\angle 2 =$
$m\angle 3 =$
$m\angle 4 =$
$m\angle 5 =$
$m\angle 6 =$
$m\angle 7 =$
$m\angle 8 =$
$m\angle 9 =$
$m\angle 10 =$
$m\angle 11 =$

12. $\overline{BD}$ & $\overline{CA}$ are diameters in the figure below.

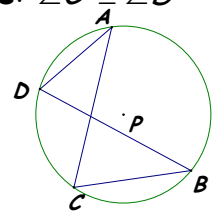


What are the measures of the following?

$m\angle 1 =$
$m\angle 2 =$
$m\angle 3 =$
$m\angle 4 =$
$m\angle 5 =$
$m\angle 6 =$

$m\angle 7 =$
$m\angle 8 =$
$m\overset{\frown}{BC} =$
$m\overset{\frown}{CD} =$
$m\overset{\frown}{DA} =$

13. **Given**: $\odot P$ with inscribed angles C and D
Prove: $\angle C \cong \angle D$



14. **Given**: $\odot O$ with inscribed $\angle ABC$; $\overline{AC}$ is a diameter.
Prove: ΔABC is a right triangle.