Ch 12 Review

12.1

- If line is tangent to a circle, then the line is perpendicular to the radius drawn to the point of tangency.

* $\overline{AB}$ is tangent to the circle.

- The 2 segments tangent to a circle from a point outside the circle are $\cong$

$\overline{AB} \cong \overline{CB}$

- Finding Perimeter.

Remember

$AD = AF$

$CF = CE$

$BD = BE$

12.2

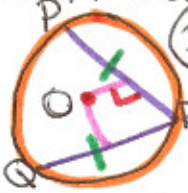
* Within a circle or $\cong$ circles:

- $\cong$ central $\angle$'s have $\cong$ chords
- Chords have $\cong$ arcs
- arcs have $\cong$ central $\angle$'s

Chord

arc

- chords equidistant from the center are $\cong$ ($\overline{PR} \cong \overline{QR}$)



- diameter that is perpendicular to chord, bisects chord + arc

Remember

12.3 Inscribed Angles

Theorem 12-9: Inscribed Angle Theorem

The measure of an inscribed angle is half the measure of its intercepted arc.

$m\angle B = \frac{1}{2} m\overset{\frown}{AC}$

1. 2 inscribed angles that intercept the same arc are congruent
2. An angle inscribed in a semicircle is a right angle.
3. The opposite angles of a quadrilateral inscribed in a circle are supplementary.

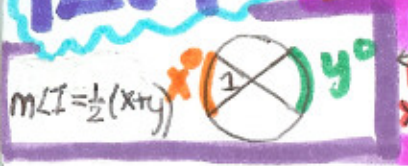
The measure of an angle formed by a tangent and a chord is half the measure of the intercepted arc

$m\angle C = \frac{1}{2} m\overset{\frown}{BDC}$

12.4

$m\angle 1 = \frac{1}{2}(x-y)$

$m\angle 1 = \frac{1}{2}(x+y)$



I.

$a \cdot b = c \cdot d$

II.

$(w+x)w = (y+z)y$

III.

$(y+z)y = t^2$

12.5

an equation of a circle with center (h,k) and radius r is:

$(x-h)^2 + (y-k)^2 = r^2$