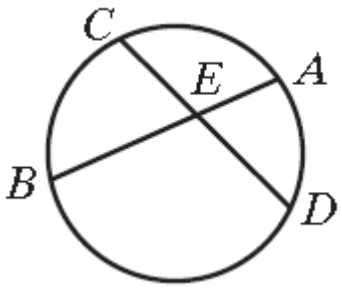
Name: _____

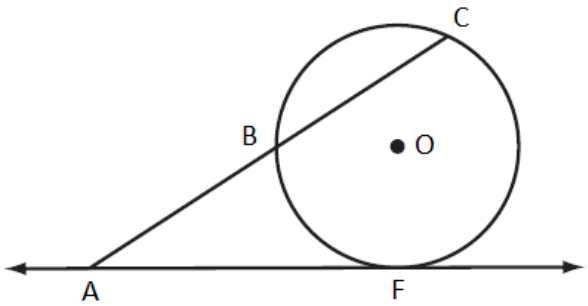
Measures of Tangent, Chords, and Secant Segments

Exercise 1: Chords $\overline{AB}$ and $\overline{CD}$ intersects at E.



1) If CE=12, ED=2, and AE=3, find EB.
2) If CE=16, ED=3, and AE=8, find EB.
3) If AE=20, EB=5, and CE=10, find ED.
4) If CE=12, ED=2, and AE is 2 more than EB, find EB.
5) If CE=8, ED=5, and AE is 6 more than EB, find EB.

Exercise 2: AF is tangent to the circle of center O at F and secant $\overline{ABC}$ intersects the circle at B and C.



1) If AF=8 and AB=4, find AC.
2) If AB=3 and AC=12, find AF.
3) If AB=4 and BC=12, find AF.
4) If AF=12 and BC is 3 times AB, find AC, AB, and BC.
5) If AF=15 and CB=16, find AC, AB, and BC.

Exercise 3: In a circle, diameter $\overline{AB}$ is extended through B to P and tangent segment $\overline{PC}$ is drawn. If BP=6 and PC=9, what is the measure of the diameter of the circle?

Exercise 4: Find the value of x.