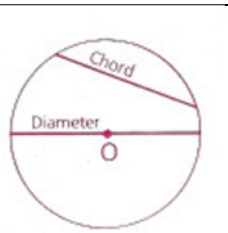
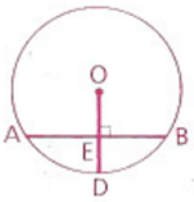
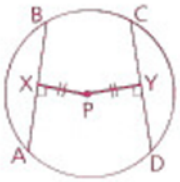
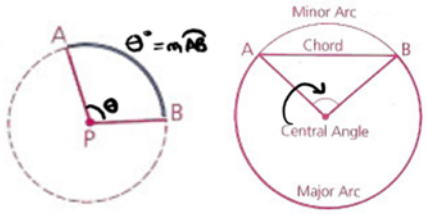
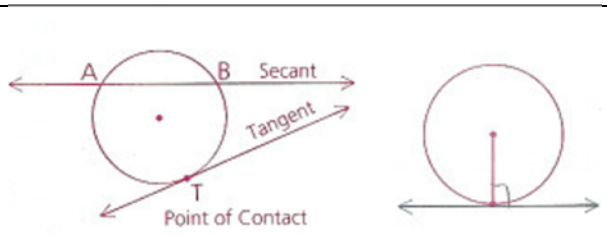
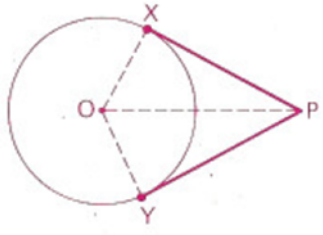
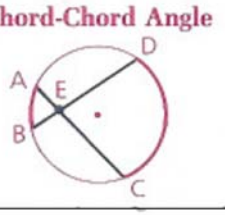
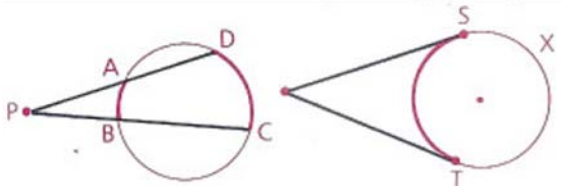
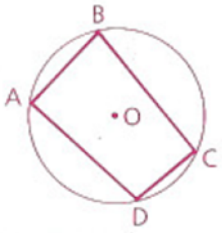
Parts of a circle **Chord:** A segment between two points on a circle **Diameter:** A chord through the center of the circle **Secant:** A line through a chord **Radius:** A segment from the center to a point on the circle	
Radius-Chord Theorem If a radius is perpendicular to a chord, then it cuts the chord in half If a radius cuts a chord in half, then it intersects the chord perpendicularly.	
Chord-Center Theorem If two chords are the same distance to the center, then they are congruent If two chords are congruent, then they are the same distance to the center	
Arcs The measure of an arc is the measure of the central angle the creates it	
Secants and Tangents A secant is a line through a chord A tangent line is a line that intersects the circle at one point only Tangent lines area always perpendicular to radi at the point of contact	
Intersecting Tangents If two tangent lines intersect, then they are congruent XP = YP (the distance from the intersection to their corresponding points of tangency are equal)	

Inscribed Angle An inscribed angle is always half the measure of the measure of the arc.	
Chord-Chord Angle $m\angle E =$ average of intercepting arcs $= \dfrac{m\overset{\frown}{AB} + m\overset{\frown}{DC}}{2}$	
Intersecting Secants and Tangents $m\angle P = \dfrac{m\overset{\frown}{CD} - m\overset{\frown}{AB}}{2}$ The difference between the outer arc and the inner arc	
Cyclic Quadrilaterals The opposite angle are supplementary	
Intersecting Chords $(VE)(EN) = (LE)(ES)$	
Intersecting Other Lines (PA)(PB) = (PC)(PD) (PT)(PT) = (PQ)(PR) (point to first intersection)(point to second intersection) = (point to first intersection)(point to second intersection)