

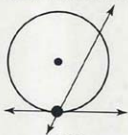


## Lesson Opener

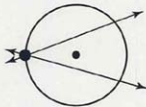
### 9.4 Angles Formed by Secants and Tangents

Angles formed by pairs of lines that intersect a circle in two or more places can be categorized according to the placement of the vertex of the angle.

Case 1: Vertex is on the circle.



Secant and Tangent



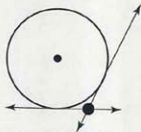
Two Secants

Case 2: Vertex is inside the circle.

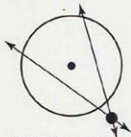


Two Secants

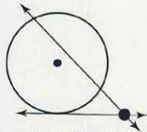
Case 3: Vertex is outside the circle



Two Tangents



Two Secants



Secant and Tangent