# Mathematics 2260H - Geometry I: Euclidean geometry <br> Trent University, Fall 2018 <br> Assignment \#8 <br> Internal and External Angles <br> Due on Friday, 8 November. 

Suppose the chords $A B$ and $C D$ of a circle with centre $O$ intersect at a point $P$ that is not on the circle.


1. Show that $\angle A P C=\frac{1}{2}(\angle A O C+\angle B O D)$ if $P$ is inside the circle. [5] [5]
2. Show that $\angle A P C=\frac{1}{2}(\angle A O C-\angle B O D)$ if $P$ is outside the circle. [5]
