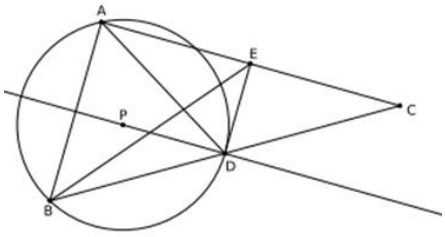

Example 5 : As shown in Figure 1 , △in ABC, D is the midpoint of BC, DE is the angle bisector of $\triangle\angle ADC$, *and is also* the tangent of the circumscribed circle of ABD. *Prove:* $\angle BAC = 90^\circ$.

Proof: Suppose $D=0$, $\dfrac{\dfrac{A}{A-B}}{\dfrac{B-A}{B}} = \dfrac{\dfrac{E}{-B}}{\dfrac{A}{E}}\left(\dfrac{\dfrac{A}{E}}{\dfrac{B-A}{B-0}}\right)^2$,

Explanation: $\angle BAC = 90^\circ$ is equivalent to $DA=DB$.