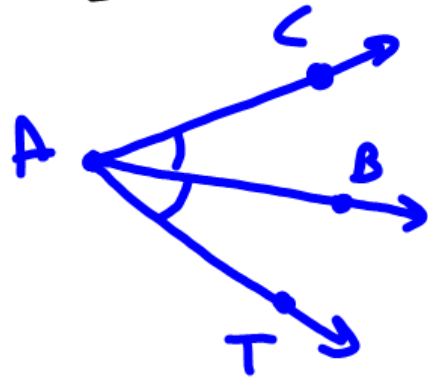


5.3 Angle Bisectors of Δ 's

- * Angle is formed by intersection of 2 lines/segments/rays
- Bisect - cut in 2 equal parts



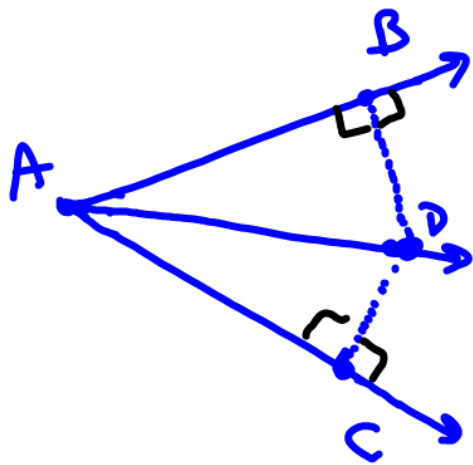
$\angle CAT$ is bisected by \overrightarrow{AB}
 So... $\angle CAB \cong \angle BAT$

If $\angle CAB = 25^\circ$, $\angle BAT = 25^\circ$, $\angle CAT = 50^\circ$
 $25 + 25$ or $2(25)$

If $\angle CAT = 82^\circ$, $\angle CAB = 41^\circ$, $\angle BAT = 41^\circ$
 $82 \div 2$

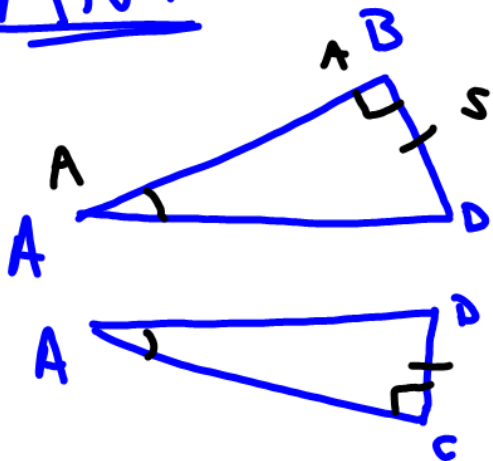
Angle Bisector Thm

If a point is on the \angle bisector, then it is equidistant from each side of the angle



\overrightarrow{AD} bisects $\angle BAC$,
 $\overline{DB} \perp \overline{AB}$, $\overline{DC} \perp \overline{AC}$,
 it means $\overline{DB} \cong \overline{DC}$

AND



$\triangle BAD \cong \triangle CAD$
 by AAS