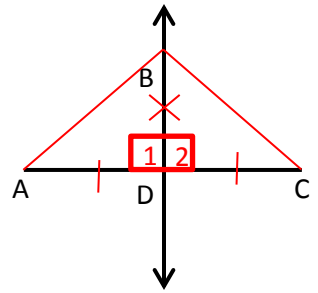


Geometry (G.CO.9)

Unit One B: Points on Perpendicular Bisectors (IC18)

Given: \overline{BD} is the perpendicular bisector of \overline{AC}

Prove: B is equidistant from A and C



Statements	Reasons
1) \overline{BD} is \perp bisector of \overline{AC}	1) Given
2) $\angle 1$ and $\angle 2$ are right \angle 's	2) Def of \perp bisector
3) $\angle 1 \cong \angle 2$ are right \angle 's	3) All right \angle 's \cong
4) $\overline{AD} \cong \overline{DC}$	4) Def of (\perp) bisector
5) Draw $\overline{AB} \cong \overline{BC}$	5) Through any 2 pts there is a seg.
6) $\overline{BD} \cong \overline{BD}$	6) Reflexive Prop
7) $\triangle ABD \cong \triangle CBD$	7) SAS
8) $\overline{AB} \cong \overline{BC}$	8) Reflexive Prop
9) B is equidistant from A and C	9) Def of equidistant