

Name _____

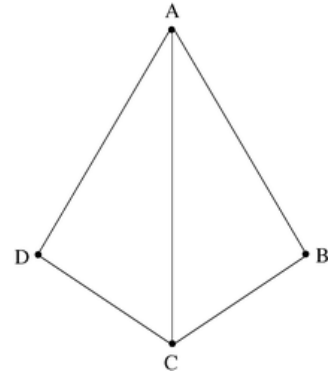
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Triangle Proofs - Step-by-Step Lesson

Given line AC bisects $\angle BAD$ & $\angle BCD$

Line $DC \perp AD$

Prove $m\angle B = 90^\circ$



Explanation:

Line AC bisects $\angle BAD$ & $\angle BCD$ (ASA)

$m\angle D = 90^\circ$ (Given)

$\triangle DAC \cong \triangle BAC$

$\angle DAC \cong \angle BAC$ (Definition of a \angle Bisector)

$DC \perp AD$ (Transitive)

$m\angle D = m\angle B$

line AC \cong line AC (Definition of a \angle Bisector)

$m\angle B = 90^\circ$

