Angle Side Angle Worksheet and Activity

URL on the Angle Side Angle Postulate

http://www.mathwarehouse.com/geometry/congruent_triangles/angle-side-angle-postulate.php

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Warm Up➔

Given: BD is a perpendicular bisector of AC,
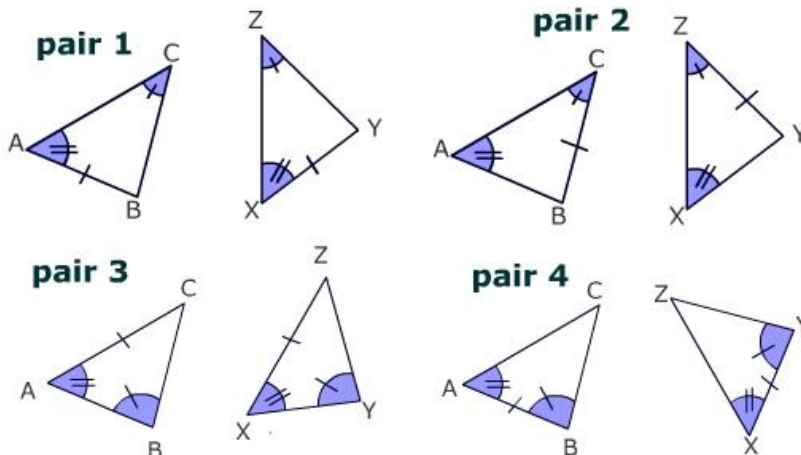
What statements and reasons can you make?
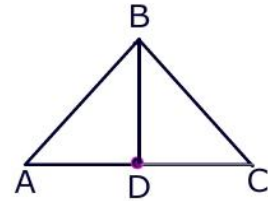
Below is another partially drawn triangle. In this case, AB has been drawn and two angles have been created. If you extend two sides from ∠a and ∠b , how many different triangles can you create?
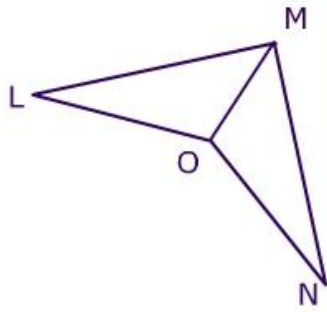
Identify Angle Side Angle Relationships

Which pair of triangles on the illustrates an angle side angle relationship?
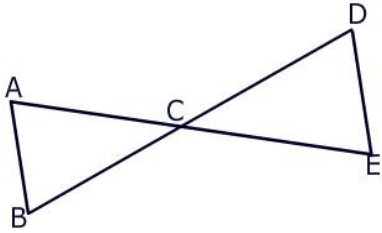
Model Problem #1

Given

$\overline{OM}$ bisects $\angle LMN$

$\angle LOM = \angle NOM$

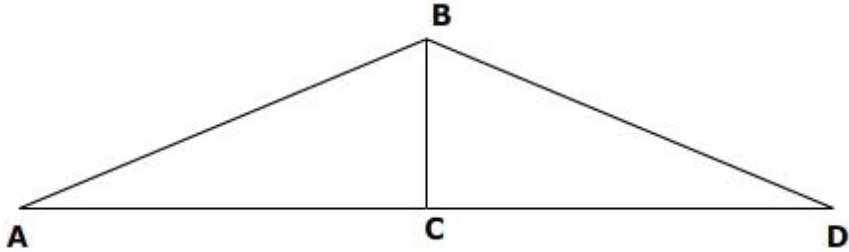**Prove**: $\Delta LMO \cong \Delta NMO$

Model Problem #2

Given
∠BAC = ∠DEC

$\overline{BD}$ bisects $\overline{AE}$

Prove: ΔACB ≅ ΔDCE

Proof A

Given: BC is an altitude to AD , ∠*ABC* ≅ ∠*DBC*

Prove Δ BCA ≅ Δ BCD

Proof B

Given: KM bisects JN , ∠K ≅ ∠ M
Prove △JLK ≅ △LNM
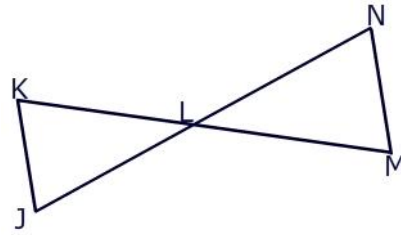
Proof C

Given: BD is a perpendicular bisector of AC,
Prove △ABD ≅ △CBD
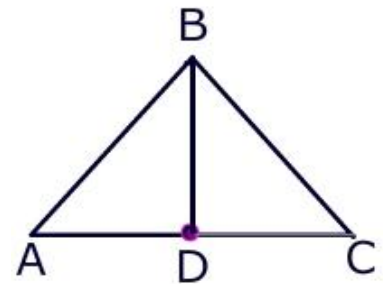
Proof D

1) IK is a bisector of obtuse angle $\angle$ HKJ, HK $\cong$ KJ
Prove $\triangle$ HIK $\cong$ $\triangle$ JIK
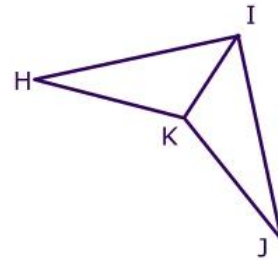
Proof E
 Given: AF $\cong$ **CD, AB** $\cong$ **EF, BC** $\cong$ **ED**
Prove the two triangles are congruent.

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