Angle Angle Side Worksheet and Activity

This worksheet contains 9 Angle Angle Side Proofs including a challenge proof and a Think Pair Share (at the end)

URL on the Angle Angle Side Postulate

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

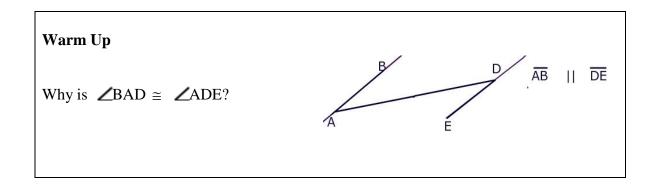
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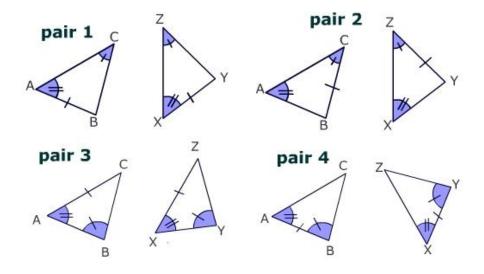
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Identify Angle Angle Side Relationships

Which pair of triangles below does **NOT** illustrate the AAS relationship?



Proof A)

(web powerpoint)

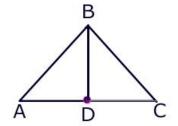
Prove \triangle ABC \cong \triangle EDC $\begin{array}{c|cccc}
B & D \\
\hline
Given C is midpoint \overline{BE} \\
\overline{AB} & || \overline{DE}
\end{array}$

Proof B)

Given:

 \overline{BD} is an altitude $\angle BAD \cong \angle BCA$

Prove: $\triangle ABD \cong \triangle CBD$

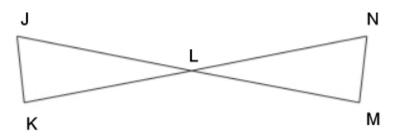


Proof C)

Given: JM bisects KN,

 $\angle K \cong \angle N$

Prove: $\Delta JLK \cong \Delta MLN$

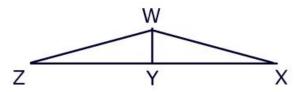


Proof D)

Given: WY bisects ∠ZWX

 $\angle Z \cong \angle X$

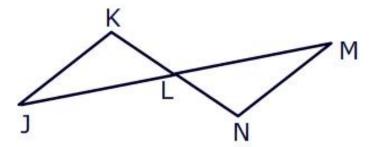
Prove: $\Delta WYZ \cong \Delta WYX$



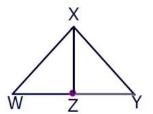
Proof E)

Given: $JK \parallel MN$

L is the midpoint of KN **Prove:** $\Delta JLK \cong \Delta MLN$



Proof F) XZ bisects ∠WXY ∠XWZ ≅ ∠XYZ

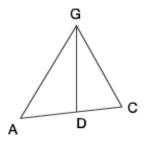


Proof G)

drawing not to scale

Given: \overline{DG} bisects $\angle AGC$, $\angle GCD \cong \angle GAD$

Prove: $\triangle GCD \cong \triangle GAD$

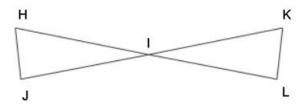


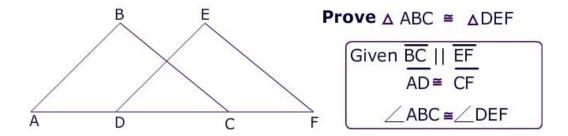
Proof H)

Given: HL bisects JK,

 $\angle H \cong \angle L$

Prove: Δ JHI $\cong \Delta$ LKI





Think Pair Share:
Is the following statement true or false? Explain your answer
"ANY TWO TRIANGLES THAT CAN BE PROVEN CONGRUENT BY ANGLE SIDE ANGLE CAN ALSO BE PROVEN CONGRUENT BY ANGLE ANGLE SIDE"
Explanation:

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