

# Side Side Side Worksheet and Activity

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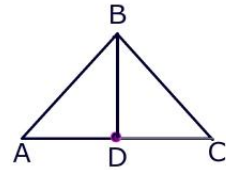
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**Warm Up**

1) What property states that  $BD \cong BD$ ?



3) Write down at least three criteria that you think must always be true for two triangles that are congruent?

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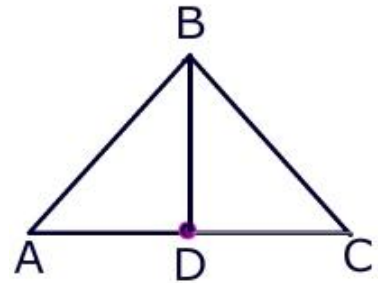
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**Model Problems      Side Side Side Proofs**

**Proof A**

**Given:**  $\overline{AB} \cong \overline{BC}$ ,  $\overline{BD}$  is a median of side  $\overline{AC}$

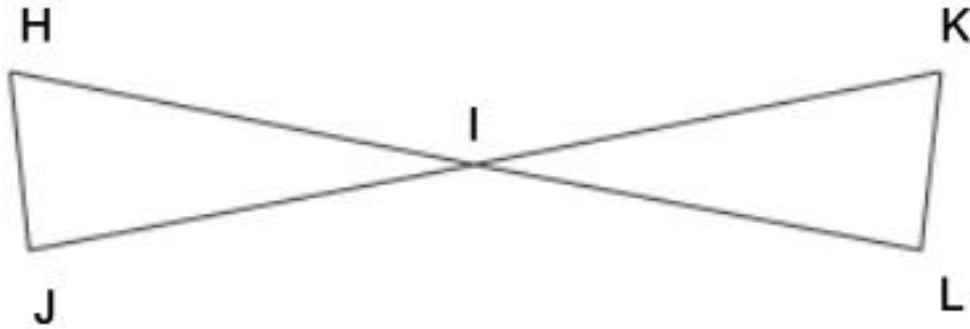
**Prove:**  $\triangle ABD \cong \triangle CBD$



Statement	Reasons

**Given:**  $\overline{HL}$  bisects  $\overline{JK}$ ,  $\overline{HJ} \cong \overline{KL}$

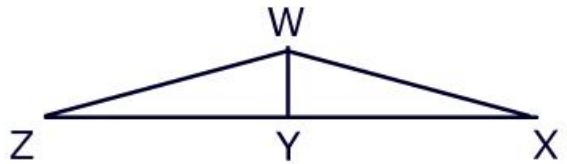
What other information do you need to be able to prove that these two triangles are congruent?



**Proof B**

**Given:**  $\overline{WZ} \cong \overline{WX}$ ,  $\overline{WY}$  bisects  $\overline{ZX}$

**Prove:**  $\triangle WYZ \cong \triangle WYX$

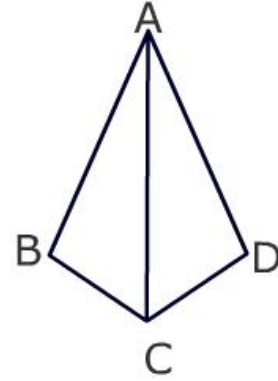


Statement	Reasons

**Proof C**

**Given:**  $\overline{BA} \cong \overline{AD}$ ,  $\overline{BC} \cong \overline{CD}$

**Prove:**  $\triangle ABC \cong \triangle ADC$

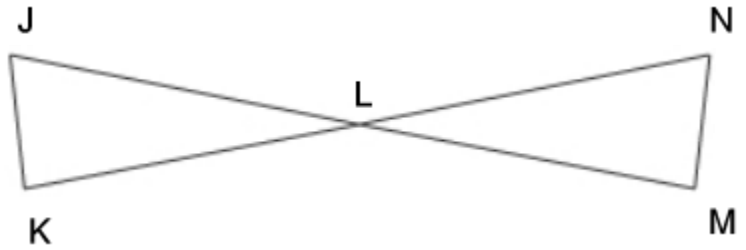


Statement	Reason

**Proof D**

**Given:** JM bisects KN, KN  
bisects JM, JK  $\cong$  NM

**Prove:**  $\triangle JLK \cong \triangle MLN$



Statement	Reason

Think Pair Share

Is it possible to prove that the two triangles on the right are congruent using the SSS postulate?

**Given:**  $AF \cong CD$ ,  $AB \cong EF$ ,  $BC \cong ED$

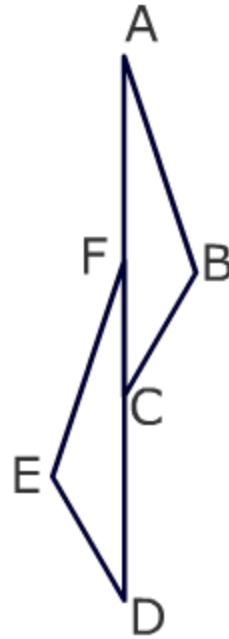
Explain your reasoning.

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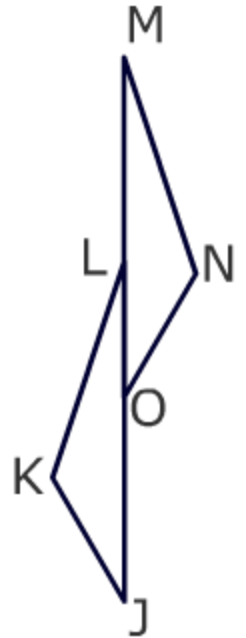
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**Proof E**

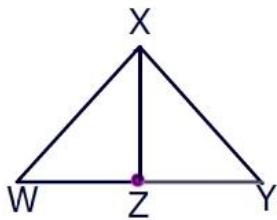
**Given**  $MN \cong KL$ ,  $ML \cong OJ$ ,  $KJ \cong ON$ .

**Prove** the triangles are congruent



**Proof F**

**Given**  $XZ$  is a median  $WX \cong XY$ . **Prove** the triangles are congruent



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