

(ASA) _____ - If two angles and the

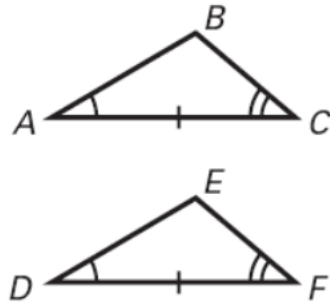
included side of one triangle are congruent to two angles and the included side of a second triangle, then the two triangles are congruent.

If angle $\angle A \cong$ _____,

side $\overline{AC} \cong$ _____, and

angle $\angle C \cong$ _____, then

$\triangle ABC \cong \triangle DEF$



(AAS) _____ - If two angles and a non-

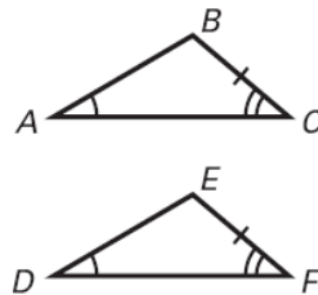
included angle of one triangle are congruent to two angles and a **non-included** angle of a second triangle, then the two triangles are congruent.

If angle $\angle A \cong$ _____,

angle $\angle C \cong$ _____, and

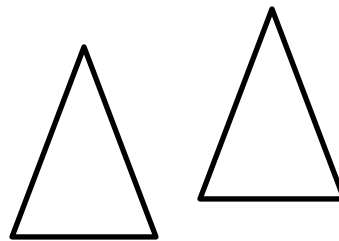
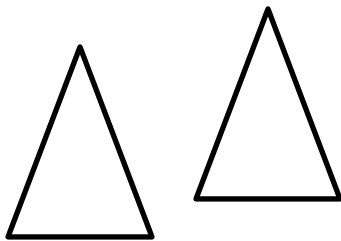
side $\overline{AC} \cong$ _____, then

$\triangle ABC \cong \triangle DEF$



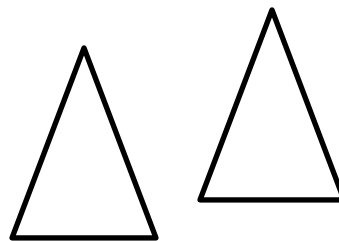
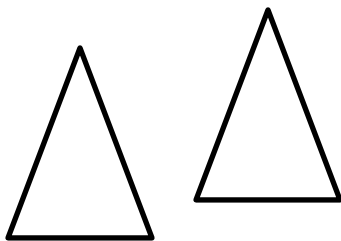
ASA

Not ASA



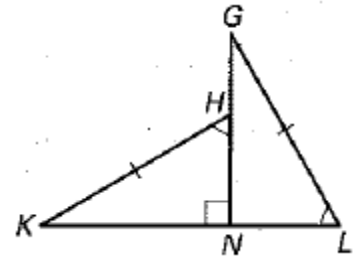
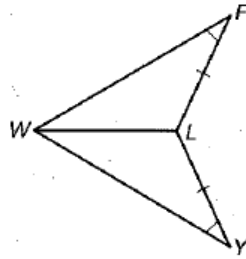
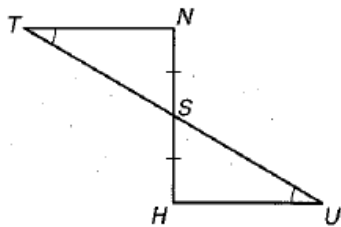
AAS

Not AAS

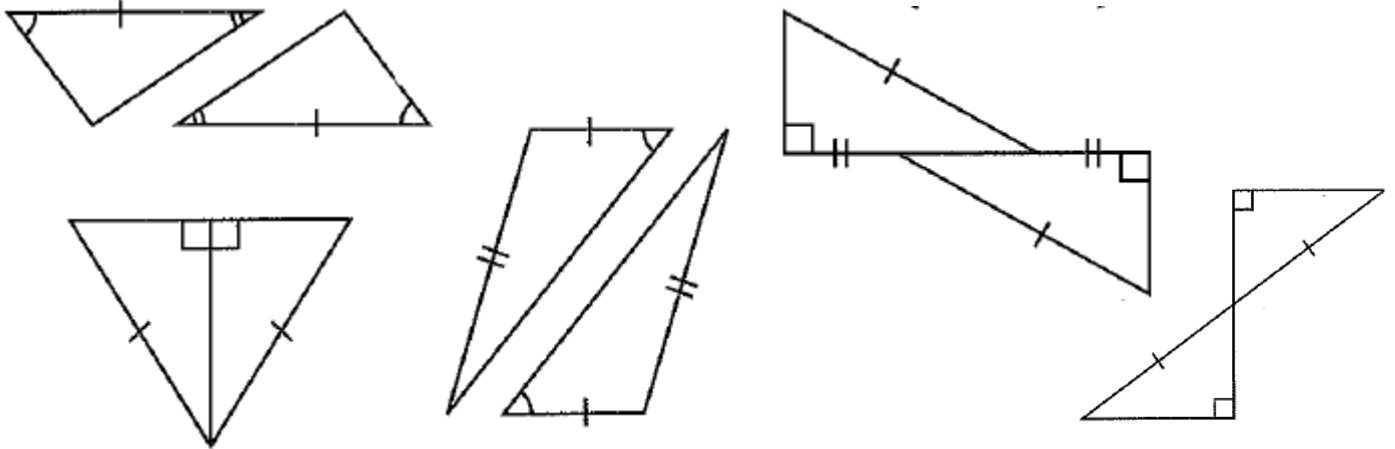


(HL) If the _____ are congruent to the hypotenuse and leg of a second right triangle, then the two triangles are congruent.

Example #1: Is it possible to prove that the triangles are congruent? If so, state the postulate of theorem you would use.

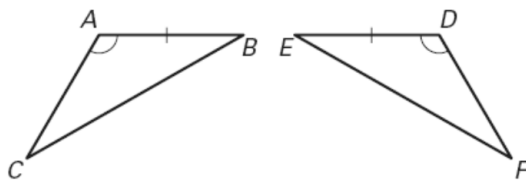


Example #2: Identify which property will prove these triangles congruent.

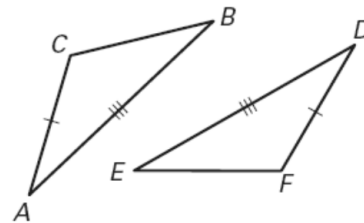


Example #3: State the third congruence that must be given to prove that $\triangle ABC \cong \triangle DEF$ using the indicated postulate or theorem.

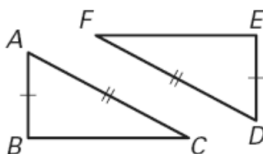
AAS Congruence Theorem



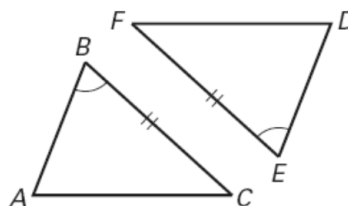
SSS Congruence Postulate



SAS Congruence Postulate



ASA Congruence Postulate



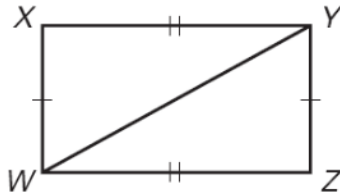
Geometry
Guided Notes

Name: _____

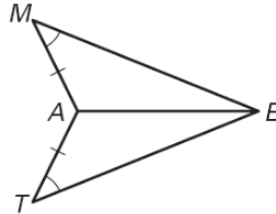
Proving Triangle Congruence Using ASA and AAS Date: _____ Period: _____

Example #4: Decide whether enough information is given to prove that the triangles are congruent. If there is enough information, state the congruence postulate you would use.

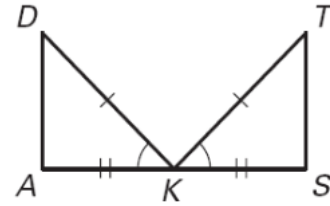
$\triangle XYW, \triangle ZWY$



$\triangle MAE, \triangle TAE$



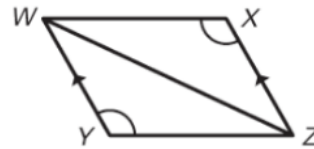
$\triangle DKA, \triangle TKS$



Example #5:

Given: $\overline{WY} \parallel \overline{XZ}$; $\sphericalangle Y \cong \sphericalangle X$

Prove: $\triangle WYZ \cong \triangle ZXW$



Statements

Justifications

Statements	Justifications

Geometry
Guided Notes

Proving Triangle Congruence Using ASA and AAS

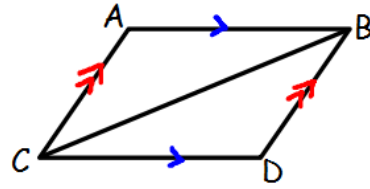
Example #6:

Given: $\overline{AB} \parallel \overline{CD}$; $\overline{AC} \parallel \overline{BD}$

Prove: $\triangle ABC \cong \triangle DCB$

Name: _____

Date: _____ Period: _____



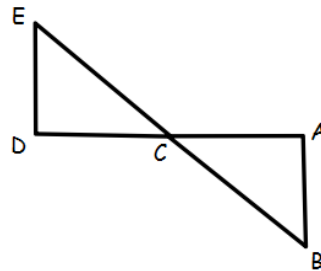
Statements

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Example #7:

Given: $\overline{AB} \perp \overline{AD}$; $\overline{DE} \perp \overline{AD}$
C is the midpoint of \overline{BE}

Prove: $\triangle ABC \cong \triangle DEC$



Statements

Justifications