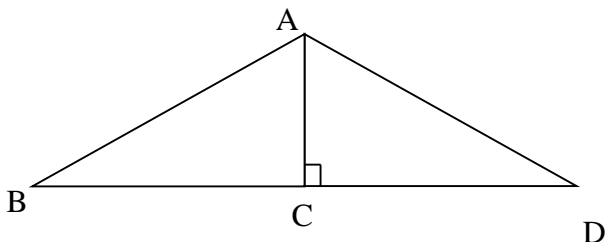


Triangle Madness

We just looked at the different types of criteria needed to show that two or more triangles are congruent. Using this information state whether the given triangles are congruent or not. Based on the given **add the appropriate congruent markings** (i.e. congruent side lengths, angle measures) and determine if the triangles really are congruent.

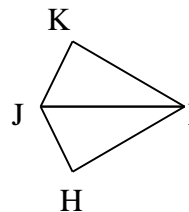
1.



Is $\triangle ABC \cong \triangle ADC$
if $m\angle ABC = m\angle ADC$?

State your criteria. _____

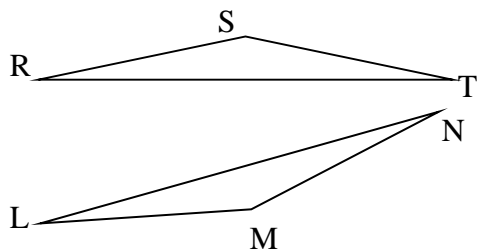
2.



Is $\triangle IKJ \cong \triangle IHJ$
if $JK = HJ$?

State your criteria. _____

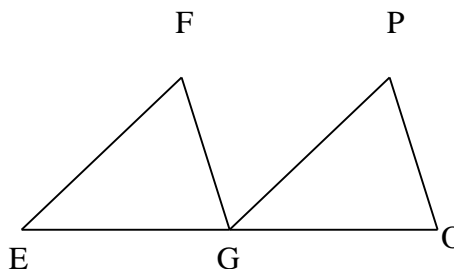
3.



Is $\triangle TSR \cong \triangle LMN$
if $m\angle TSR = m\angle LMN$,
 $m\angle SRT = m\angle MNL$, and
 $RS = MN$?

State your criteria. _____

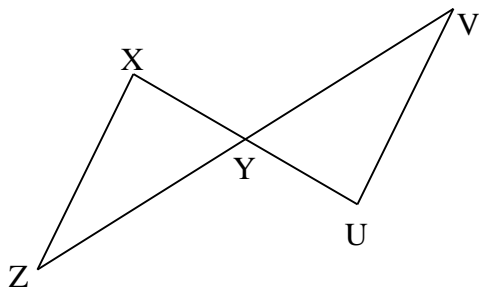
4.



Is $\triangle PGO \cong \triangle FEG$
if $EG = GO$,
 $FE = PG$, and
 $m\angle GFE = m\angle OPG$?

State your criteria. _____

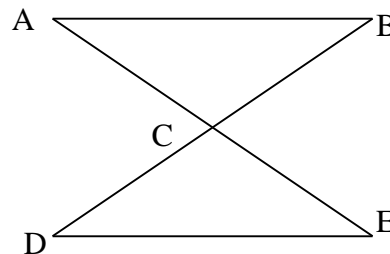
5.



Is $\triangle UYV \cong \triangle XYZ$ if
 $XZ \parallel UV$ and
 $ZY = VY$?

State your criteria. _____

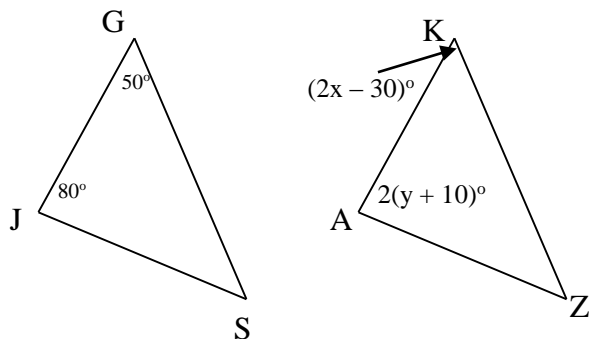
6.



Is $\triangle ABC \cong \triangle DEC$
if $m\angle CAB = m\angle CDE$ and
AE bisects BD?

State your criteria. _____

For #'s 7-8 find the **values of x and y** that will generate two congruent triangles and give a **justification** for your reasoning.



7.

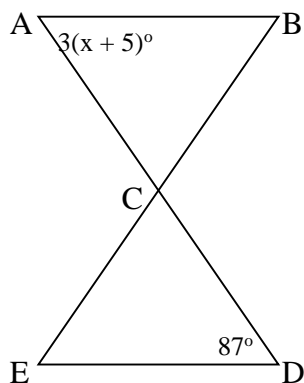
If $GJ = KA$, find the values of x and y to make $\triangle GSJ \cong \triangle KZA$.

State your justification. _____

$x =$ _____

$y =$ _____

8.



If $AB = DE$ and
 C is the midpoint of AD ,
 find the value of x to make $\triangle ABC \cong \triangle DEC$.

State your criteria. _____

$x =$ _____