

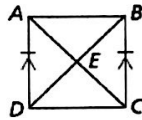
### Triangle Proofs Worksheet

For each problem below, write a two-column proof on a separate piece of paper.

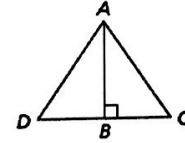
#### I. Proving Triangles Congruent:

1. Use AAS to prove the triangles congruent.

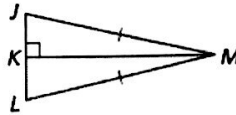
Given:  $\overline{AD} \parallel \overline{BC}$ ,  $\overline{AD} \cong \overline{CB}$   
 Prove:  $\triangle AED \cong \triangle CEB$



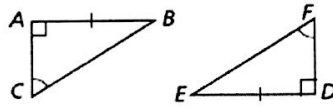
5. Given:  $B$  is the midpoint of  $\overline{DC}$ .  $\overline{AB} \perp \overline{DC}$   
 Prove:  $\triangle ABD \cong \triangle ABC$



2. Given:  $\overline{KM} \perp \overline{JL}$ ,  $\overline{JM} \cong \overline{LM}$ ,  $\angle JMK \cong \angle LMK$   
 Prove:  $\triangle JKM \cong \triangle LKM$

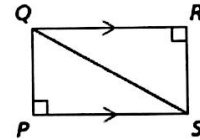


3. Given:  $\overline{AB} \cong \overline{DE}$ ,  $\angle C \cong \angle F$   
 Prove:  $\triangle ABC \cong \triangle DEF$

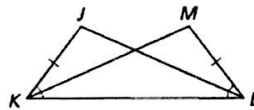


6. Use AAS to prove the triangles congruent.

Given:  $\angle R$  and  $\angle P$  are right angles.  
 $\overline{QR} \parallel \overline{SP}$   
 Prove:  $\triangle QPS \cong \triangle SRQ$

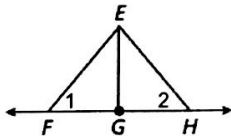


4. Given:  $\overline{JK} \cong \overline{ML}$ ,  $\angle JKL \cong \angle MLK$   
 Prove:  $\triangle JKL \cong \triangle MLK$

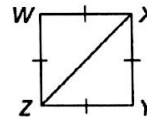


#### II. Using CPCTC

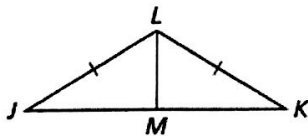
7. Given:  $G$  is the midpoint of  $\overline{FH}$ .  
 $\overline{EG} \cong \overline{EH}$   
 Prove:  $\angle 1 \cong \angle 2$



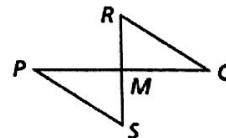
10. Given:  $\overline{WX} \cong \overline{XY} \cong \overline{YZ} \cong \overline{ZW}$   
 Prove:  $\angle W \cong \angle Y$



8. Given:  $\overline{LM}$  bisects  $\angle JLK$ .  $\overline{JL} \cong \overline{KL}$   
 Prove:  $M$  is the midpoint of  $\overline{JK}$ .



11. Given:  $M$  is the midpoint of  $\overline{PQ}$  and  $\overline{RS}$ .  
 Prove:  $\overline{QR} \cong \overline{PS}$



9. Given:  $\overline{AC} \cong \overline{AD}$ ,  $\overline{CB} \cong \overline{DB}$   
 Prove:  $\overline{AB}$  bisects  $\angle CAD$ .

