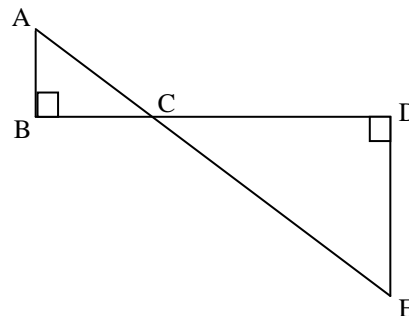


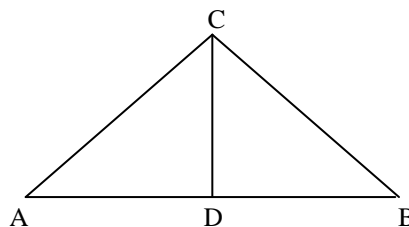
Name \_\_\_\_\_  
Period: \_\_\_\_\_ Date: \_\_\_\_\_

HC3 – U4L2  
Similar Triangles 1

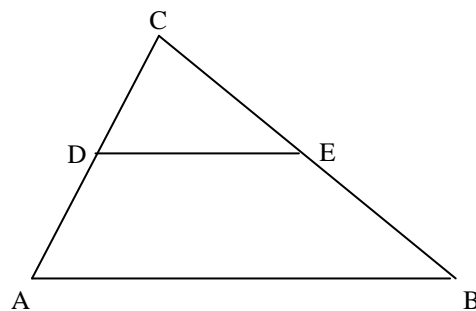
1. *Given:*  $\angle ABC$  is a right angle.  
 $\angle EDC$  is a right angle.  
*Prove:*  $\triangle ABC \sim \triangle EDC$



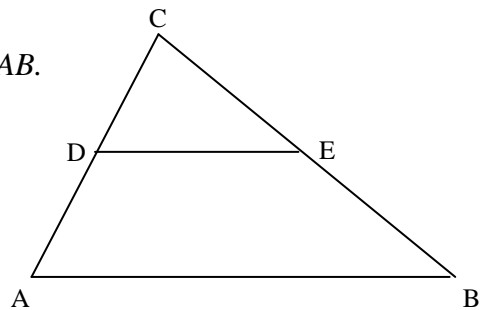
2. *Given:*  $\triangle ABC$ ,  $\overline{AC} \cong \overline{BC}$  and  $\overline{CD}$  bisects  $\angle C$ .  
*Prove:*  $\triangle ACD \sim \triangle BCD$



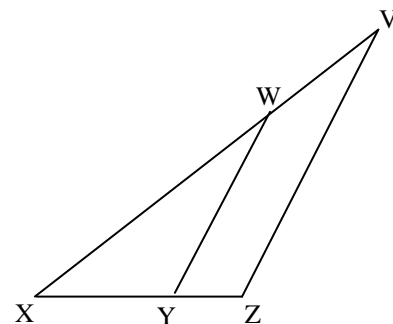
3. In  $\triangle ABC$ ,  $D$  is a point on  $\overline{AC}$  and  $E$  is a point on  $\overline{BC}$  such that  $\overline{DE} \parallel \overline{AB}$ . If  $DE = 8$  feet,  $AB = 20$  feet,  $CD = 4$  feet, and  $EB = 9$  feet, find:  
a.  $CA$   
b.  $CE$



4. If  $\overline{DE} \parallel \overline{AB}$ .  $ED = 3$ ,  $AB = x$ ,  $AD = x + 1$ , and  $CD = x + 4$ , find  $AB$ .



5. *Given:*  $\overline{WY} \parallel \overline{VZ}$   
*Prove:*  $\triangle XYW \sim \triangle XZV$



6. *Given:* Quadrilateral DEFG,  $\overline{EF} \cong \overline{GF}$  and  $\overline{DF}$  bisects  $\angle F$ .  
*Prove:*  $\triangle DEF \sim \triangle DGF$

