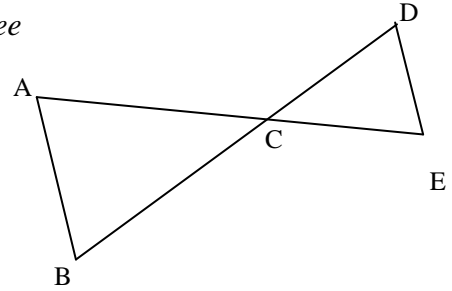


Name: _____
 Period: _____ Date: _____

6. Examine the diagram given. Does $\triangle ABC$ appear to be similar to $\triangle EDC$?
 For each condition below, determine if that condition will *guarantee* $\triangle ABC \sim \triangle EDC$. Justify your conclusion.

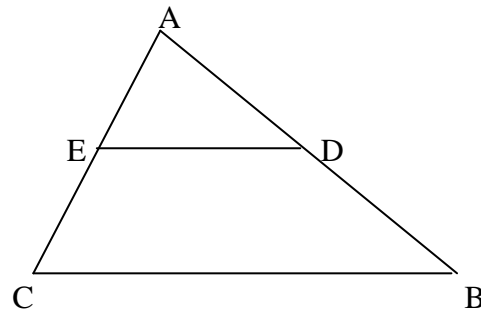


a. $\overline{AB} \parallel \overline{DE}$

b. $BC = 2DC$ and $AB = 2ED$

c. $\frac{AB}{ED} = \frac{BC}{CD} = \frac{AC}{CE}$

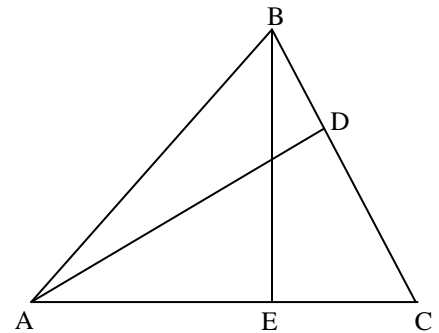
7. a. Given: $\overline{DE} \parallel \overline{BC}$
 Prove: $\frac{AC}{AE} = \frac{AB}{AD}$



- b. Given: $\triangle ABC \sim \triangle ADE$
 Prove: $\overline{ED} \parallel \overline{CB}$

8. Given: $\triangle ABC$, $\overline{AD} \perp \overline{BC}$, $\overline{BE} \perp \overline{AC}$. Determine if each pair of triangles are similar. If so, write a proof. If not, provide an explanation.

- a. $\triangle ADC \sim \triangle BEC$
 b. $\triangle ADB \sim \triangle BEA$



9. Given: $\triangle ABC$, \overline{CD} is the altitude to the hypotenuse.
 Use deductive reasoning to determine which conclusions are valid. If a conclusion is not valid, provide an explanation.

- a. $\triangle ADC \sim \triangle ACB$
 b. $\triangle ADC \sim \triangle CDB$

