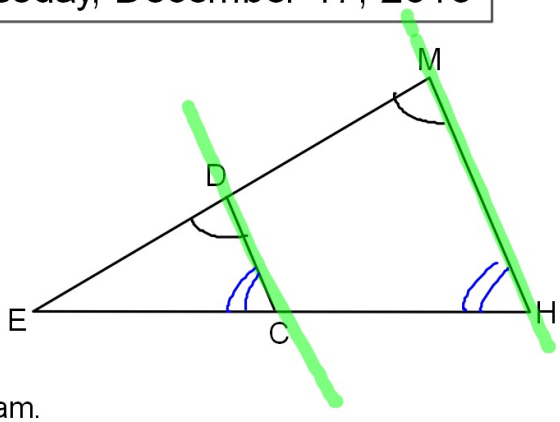
Geometry Bellwork Tuesday, December 17, 2013

1. Given: $\overline{MH} \parallel \overline{DC}$



a. Why is $\angle EMH \cong \angle EDC$?

Corresp $\angle$s

b. Why is $\angle EHM \cong \angle ECD$?

Corresp $\angle$s

c. Name the two triangles in the diagram.

ΔDEC & ΔMEH

d. What is the third angle in each triangle?

$\angle E$

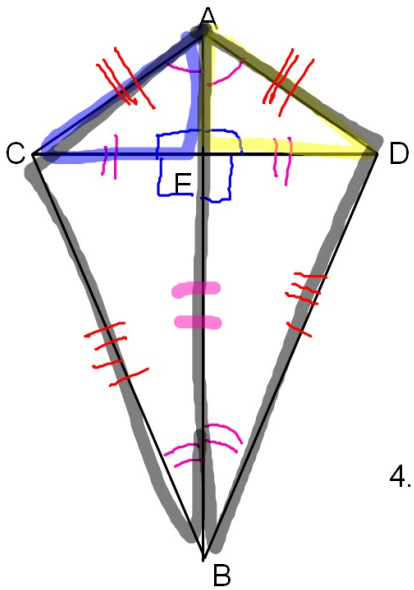
What is true about this third pair of angles?

$\cong$ reflexive propert

e. Are these triangles congruent? Explain your answer.

No, there are no corresponding sides that are congruent. AAA only shows that two triangles are similar.

2. The figure below is a kite. Diagonal $\overline{AB}$ is the $\perp$ bisector of diagonal $\overline{CD}$ and also bisects $\angle$ CAD and $\angle$ CBD. Write a congruence statement for each pair of triangles in this figure that are congruent and give a reason.



1. $\Delta AEC \cong \Delta AED$ AAS

2. $\Delta CEB \cong \Delta DEB$ or ASA

ASA, AAS, SAS

3 $\Delta ACB \cong \Delta ADB$ ASA

3. What is true about $\overline{AC}$ and $\overline{AD}$?

$\overline{AC} \cong \overline{AD}$ → corresp. sides of $\cong \Delta$s

4. What is true about $\overline{BC}$ and $\overline{BD}$?

$\cong$