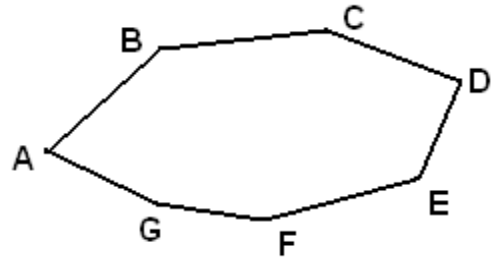


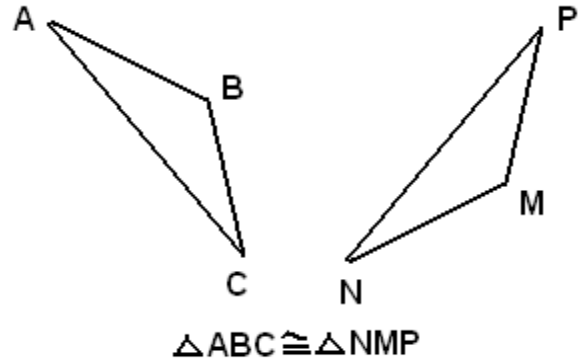
CP Geometry
HW: Congruent Polygons

Name: _____

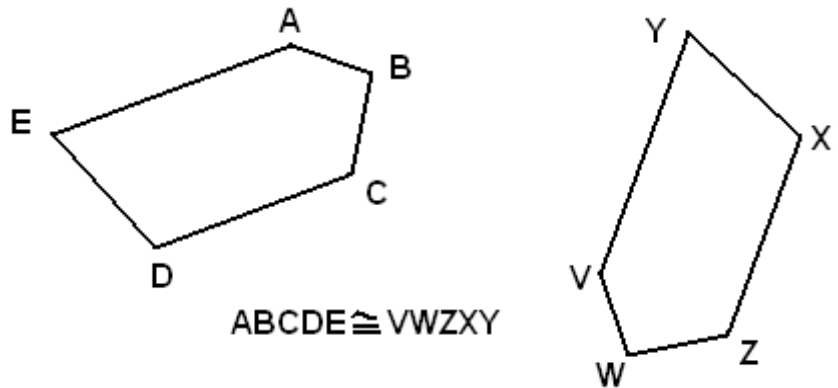
- 1.) Give all possible names for the figure on the right.



- 2.) Using the figure on the right, write three sets of congruent angles and three sets of congruent sides.

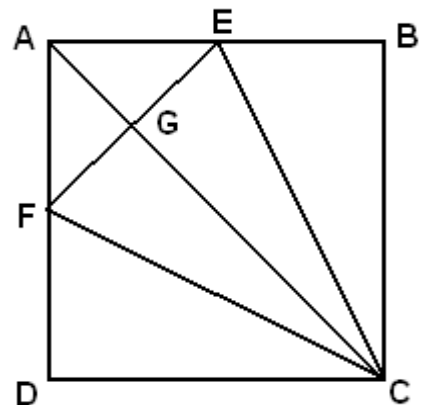


- 3.) Using the figure on the right, write out all pairs of congruent angles and all pairs of congruent sides.



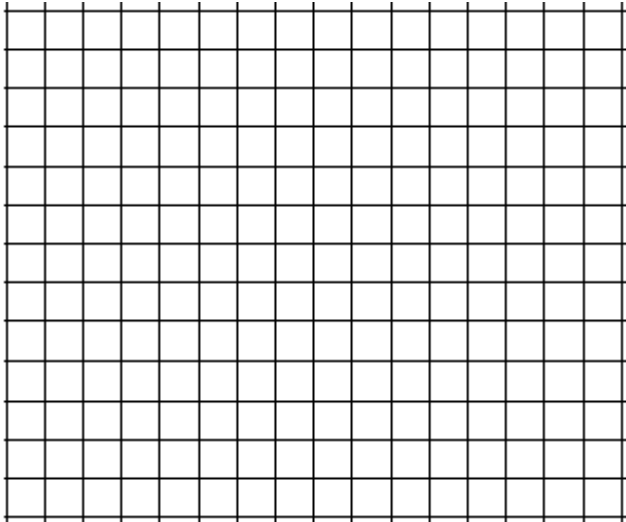
- 4.) Name the triangles that appear to be congruent to the given triangles in the figure.

- (A) $\triangle AFG$
- (B) $\triangle ACD$
- (C) $\triangle CDF$
- (D) $\triangle ACE$
- (E) Name a triangle that is not congruent to any other triangle in the figure.



- 5.) Using coordinate plane geometry and our ideas of congruence, prove that quadrilateral GEOM is congruent to quadrilateral ABCD where $G(-4,1)$, $E(-2,2)$, $O(0,-2)$, $M(-2,-3)$ and $A(3,5)$, $B(5,4)$, $C(3,0)$, $D(1,1)$ are the points.

Hint: Can you show all corresponding sides and all corresponding angles are congruent? PCP!



- 6.) Prove that triangle congruence is transitive.
[Hint: Start by saying what it means for two triangles to be congruent ... there are six things that happen ... and see where you can go from there.]

Given: $\triangle ABC$ is congruent to $\triangle DEF$
 $\triangle DEF$ is congruent to $\triangle XYZ$

Prove: $\triangle ABC$ is congruent to $\triangle XYZ$