

**Lesson 2.03 – “On Your Own” Worksheet**

**Name:** \_\_\_\_\_

5. Assume  $\triangle CAT \cong \triangle DOG$ . List all the corresponding parts.

6. **Standardized Test Prep** You are given that  $\triangle DFG \cong \triangle CHK$ . Which of the following statements is true by “corresponding parts of congruent figures are congruent”?

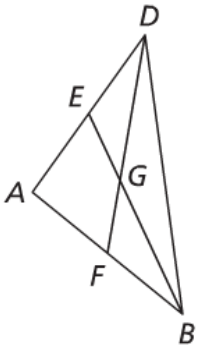
A.  $m\angle FGD = m\angle CKH$

B.  $\overline{CH} \cong \overline{DG}$

C.  $DF = HK$

D.  $\angle FGD \cong \angle KCH$

7. Use the figure below. Some pairs of triangles are *certainly not* congruent. List any pairs of triangles that appear to be congruent.



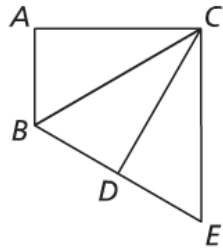
8. You can compare figures in many different ways. Congruence is a *shape* comparison. Area is a *quantitative* comparison. Use what you know about area to answer the following questions.

a. If two polygons are congruent, must they have the same area? Explain.

b. If two polygons have the same area, must they be congruent? Explain.

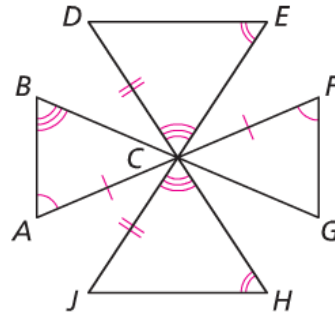
Similarity is another shape comparison. Perimeter is another quantitative comparison.

9. The figure below contains three congruent triangles.



- a. Write a correct congruence statement for the three congruent triangles.
- b. On your own sketch, mark congruent corresponding parts.
- c. In quadrilateral  $ABDC$ , which triangle is congruent to  $\triangle ABC$ ?
- d. In  $\triangle BCE$ , which triangle is congruent to  $\triangle ECD$ ?

10. The figure at the right is not drawn to scale. The markings indicate which pairs of segments and which pairs of angles are congruent. Segments that appear to be straight are meant to be.



a. Assume  $m\angle F = 80^\circ$ ,  $m\angle H = 50^\circ$ , and  $m\angle B = 40^\circ$ . What are the measures of  $\angle A$ ,  $\angle E$ , and  $\angle D$ ?

$m\angle A = \underline{\hspace{2cm}}$      $m\angle E = \underline{\hspace{2cm}}$      $m\angle D = \underline{\hspace{2cm}}$

11. Think about two congruent irregular pentagons. How many pairs of corresponding parts do they have? Draw and label your pentagons. Write a congruence statement. List all corresponding congruent parts.

Figures

pairs of corresponding points? \_\_\_\_\_

congruence statements: \_\_\_\_\_

list of corresponding parts: