**Homework: Parallels Cut by a Transversal**

**Directions:** Use the figure to compete the following:

**1. Highlight the transversal**

**2. Name the parallel lines n and k**

**Directions: Use the figure to name the relationship between the two angles.**

 You must use only the following relationships:

Corresponding angles are congruent

Alternate interior angles are congruent

Alternate exterior angles are congruent

Consecutive interior angles are supplementary

Linear pairs are supplementary

Vertical angles are congruent

**3. Angles 5 and 3 4. Angles 1 and 7**

**5. Angles 8 and 4 6. Angles 6 and 3**

**Directions:** Use the figure to name the relationship between the two angles assuming the two lines are parallel and find the measure of the angles.

7. $If m<2=113°, what is m<6?$ 8. $If m<4=100°, what is m<6?$

m<6 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m<6 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. $If m<1=84°, what is m<3?$ 10. $If m<7=75°, what is m<1?$

m<3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m<1 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. $If m<3=81°, what is m<6?$ 12. $If m<6=111°, what is m<3?$

m<6 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m<3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13.

 **Directions:**

If DC and BA are parallel, state if the angles are congruent or supplementary and why.

14.<DHG and <HGA

15. <FHC and <DHG

16. <BGE and <FHC

17. <EGA and <GHC

18. <AGH and <EGA