**Geometry Chapter 2 Study Guide**

**1.** What is inductive reasoning?

**2.** What is a conditional statement?

**3.** In a conditional statement, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ always follows the “if” and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ always follows the “then.”

**4.** When we write the converse of a conditional, what is done?

**5. Write the converse:** If two lines are parallel, then they do not intersect.

**6.** Every conditional and converse has a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ associated with it. A conditional will be true if a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cannot be found to prove it false.

**7.** What is negation? What do we do in order to negate a statement?

**8.** How do we write the inverse of a statement? How do we write the contrapositive of a statement?

**9.** What two statements make up a biconditional?

**10.** Both the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have to be true in order to write a true biconditional.

**11.** What four word phrase is used when writing a biconditional?

**12.** What are the three requirements of a good definition?

**13.** Define the Law of Detachment and give an example.

**14.** Define the Law of Syllogism and give an example.

**15.** What does it mean when a ray bisects an angle? If an angle is being bisected, what can we say about the two smaller angles that are being created?

**16.** What does the Vertical Angles Theorem tell us? Explain with a diagram.