

Ch 2 Review Assignment

Name: _____ Per: _____

biconditional (p. 87)

conclusion (p. 80)

conditional (p. 80)

converse (p. 81)

deductive reasoning (p. 94)

hypothesis (p. 80)

Law of Detachment (p. 94)

Law of Syllogism (p. 95)

paragraph proof (p. 111)

Reflexive Property (p. 105)

Symmetric Property (p. 105)

theorem (p. 110)

Transitive Property (p. 105)

truth value (p. 81)

Choose the correct vocabulary term to complete each sentence.

1. The statement " $\angle A \cong \angle A$ " is an example of the ? Property of Congruence.
2. In a conditional statement, the part that directly follows *if* is the ?.
3. "If $\angle A \cong \angle B$ and $\angle B \cong \angle C$, then $\angle A \cong \angle C$ " is an example of the ? Property of Congruence.
4. When a conditional and its converse are true, they may be written as a single true statement called a ?.
5. The ? of a conditional switches the hypothesis and the conclusion.
6. "If $\angle A \cong \angle B$, then $\angle B \cong \angle A$ " is an example of the ? Property of Congruence.
7. The part of a conditional statement that follows "then" is the ?.
8. A conditional has a ? of true or false.
9. Reasoning logically from given statements to a conclusion is ?.
10. A statement that you prove true is a ?.

For Exercises 11–13, (a) write the converse and (b) determine the truth value of the conditional and its converse. (c) If both statements are true, write a biconditional.

11. If you are a teenager, then you are younger than 20.
12. If an angle is obtuse, then its measure is greater than 90 and less than 180.
13. If a figure is a square, then it has four sides.
14. Write the following sentence as a conditional: All flowers are beautiful.
15. Rico defines a *book* as something you read. Explain why this is not a good definition.

16. Write this definition as a biconditional:

An *oxymoron* is a phrase that contains contradictory terms.

17. Write this biconditional as two statements, a conditional and its converse:

Two angles are complementary if and only if the sum of their measures is 90.

Use the Law of Detachment to make a conclusion.

18. Line ℓ and line m are perpendicular. If two lines are perpendicular, they intersect to form right angles.

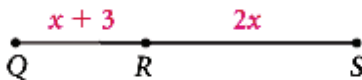
19. If two angles are supplementary, then the sum of their measures is 180.
 $\angle 1$ and $\angle 2$ are supplementary.

Use the Law of Syllogism to make a conclusion.

20. If Kate studies, she will get good grades. If Kate gets good grades, she will graduate.

21.

Algebra Fill in the reason that justifies each step.

Given: $QS = 42$	
$QR + RS = QS$	a. ?
$x + 3 + 2x = 42$	b. ?
$3x + 3 = 42$	c. ?
$3x = 39$	d. ?
$x = 13$	e. ?

22.

Use the given property to complete each statement.

Transitive Property of Equality
 If $x = 5$ and $5 = y$, then $x = \underline{\quad?}$.

Reflexive Property of Congruence
 $\overline{NM} \cong \underline{\quad?}$

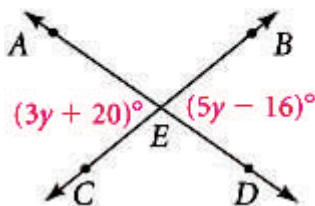
Addition Property of Equality
 If $x = 5$, then $x + 3 = \underline{\quad?}$.

Division Property of Equality
 If $2(AX) = 2(BY)$, then $AX = \underline{\quad?}$.

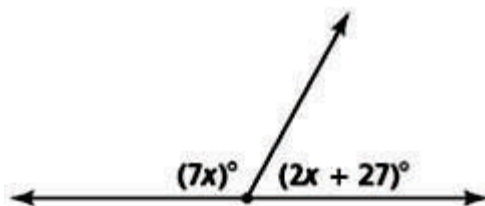
find the value of the variable in each diagram.

23.

Algebra Find the value of y .



24.



25.

