

2-3

Practice

Conditional Statements

Identify the hypothesis and conclusion of each statement.

1. If $3x + 4 = -5$, then $x = -3$.

hypothesis conclusion

2. If you take a class in television broadcasting, then you will film a sporting event.

hypothesis

conclusion

Write each statement in if-then form.

3. "Those who do not remember the past are condemned to repeat it." (George Santayana)

If you ~~do not~~ do not remember the past, then you are condemned to repeat it.

4. Adjacent angles share a common vertex and a common side.

If 2 angles are adjacent, then they share a common vertex and a common side.

Determine the truth value of the following statement for each set of conditions.

If DVD players are on sale for less than \$100, then you buy one.

5. DVD players are on sale for \$95 and you buy one. True

6. DVD players are on sale for \$100 and you do not buy one. True

7. DVD players are not on sale for under \$100 and you do not buy one. True

8. Write the converse, inverse, and contrapositive of the conditional statement. Determine whether each statement is true or false. If a statement is false, find a counterexample.

If $(-8)^2 > 0$, then $-8 > 0$.

Converse: If $-8 > 0$, then $(-8)^2 > 0$; true

SUMMER CAMP For Exercises 9 and 10, use the following information.

Older campers who attend Woodland Falls Camp are expected to work. Campers who are juniors wait on tables.

9. Write a conditional statement in if-then form.

If you are a junior, then you wait on tables

10. Write the converse of your conditional statement.

If you wait on tables, then you are a junior