Name_____ Class_____ Date_____

Practice 2-1

Conditional Statements

Show that each conditional is false by finding a counterexample.

1. If it is 12:00 noon, then the sun is shining.
2. If the car is full of gas, then the engine will start.
3. If a number is divisible by 3, then it is odd.

Write the converse of each conditional.

4. If you drink milk, then you will be strong.
5. If a rectangle has four sides the same length, then it is a square.
6. If you do not sleep, you will be tired.

Write the converse of each statement. If the converse is true, write *true;* if it is not true, provide a counterexample.

7. If $x - 4 = 22$, then $x = 26$.
8. If $|x| > 0$, then $x > 0$.
9. If m^2 is positive, then m is positive.
10. If $y = 3$, then $2y - 1 = 5$.
11. If point A is in the first quadrant of a coordinate grid, then $x > 0$.
12. If two lines have equal slopes, then the lines are parallel.
13. If you are a twin, then you have a sibling.
14. Draw a Venn diagram to illustrate the statement in Exercise 13.

Answer the following questions about the given quote.

"If you like to shop, then visit the Pigeon Forge outlets in Tennessee."

15. Identify the hypothesis and the conclusion.
16. What does the quote suggest about the Pigeon Forge outlets?
17. Write the converse of the conditional.
18. Is the converse of the conditional a true statement? Explain your reasoning.

Answer the following questions about the billboard advertisement shown.

19. What does the billboard imply?
20. Write the advertisement slogan as a conditional statement.
21. Write the converse of the conditional statement from Exercise 20.

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