

Name _____

13-1B Lesson Master**Questions on SPUR Objectives**

See pages 833–835 for objectives.

PROPERTIES Objective C

In 1–5, identify the antecedent and the consequent of the if-then statement.

1. If the discriminant of a quadratic is not a perfect square, then the quadratic is not factorable over the integers.

antecedent: _____

consequent: _____

2. If you are 18 years old, then you can register to vote.

antecedent: _____

consequent: _____

3. It will be rainy on Monday if it is not snowing.

antecedent: _____

consequent: _____

4. If two sisters are in Paris, then they are in France.

antecedent: _____

consequent: _____

5. You will get your money back if you are not completely satisfied with the product.

antecedent: _____

consequent: _____

In 6 and 7, rewrite the statement in if-then form with a variable in it, underline the antecedent once and the consequent twice.

6. The squeaky wheel gets the oil.

7. A triangle with a right angle is a right triangle.

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PROPERTIES Objective D

In 8–15, an if-then statement is given. Tell whether the statement is true or false.

8. If the area of a circle is 9π , then its diameter is 6. _____
9. If $5x = 10$, then $x = 2$. _____
10. If $|x| = 2$, then $x = 2$. _____
11. If the hypotenuse of the right triangle is 5, then the legs are 3 and 4. _____
12. If $k^2k^x = k^8$, then $x = 4$. _____
13. If $x = 2$, then $|x| = 2$. _____
14. If $c = 1$, then $x^2 + 2x + c$ is factorable over the integers. _____
15. If $y = (x + 2)^2$, then $y = x^2 + 4$. _____

USES Objective G

In 16–18, a statement is given.

- a. Rewrite the statement as an if-then statement.
- b. Tell whether the statement is true or false. If false, find a counterexample that shows it is false.
16. The equation $x = 3$ describes all solutions of the equation $x^2 = 9$.
- a. _____
- b. _____
17. All houses are made of brick.
- a. _____
- b. _____
18. There are no cities in the United States that have populations larger than 100,000.
- a. _____
- b. _____