

Name _____

13-5B Lesson Master**Questions on SPUR Objectives**

See pages 833–835 for objectives.

PROPERTIES Objective EIn 1–8, *true or false*. If false, provide a counterexample.

1. The quotient of two even numbers is even. _____
2. The quotient of two odd numbers is odd. _____
3. All even numbers are divisible by 1. _____
4. All odd numbers are divisible by 3. _____
5. All numbers that are divisible by 8 are divisible by both 2 and 4. _____
6. The quotient of two numbers that are divisible by 6 is also divisible by 6. _____
7. The product of two even numbers is divisible by 4. _____
8. The sum of n even numbers is even, when n is an integer. _____
9. Consider the statement: If two numbers are each divisible by 6, then their sum is divisible by 3. Is this statement true or false? If false, provide a counterexample.

Name _____

13-5B**page 2**

10. Consider the statement: If two numbers are both divisible by 2, then their sum is divisible by 4.

a. Is this statement true or false? If false, provide a counterexample.

b. Use rows of dots to explain why this statement is true or false.

In 11-14, prove the statement or find a counterexample.

11. The sum of two odd numbers is an even number.

12. If a number is divisible by 6, then its cube is divisible by 12.

13. The product of an even number and an odd number is even.

14. The sum of an even number and an odd number is an even number.

