

Name \_\_\_\_\_

**13-6B Lesson Master****Questions on SPUR Objectives**

See pages 833–835 for objectives.

**PROPERTIES** Objective E

In 1–6, an integer is given.

- Tell whether the integer is divisible by 2 and state a reason why.
- Tell whether the integer is divisible by 3 and state a reason why.
- Tell whether the integer is divisible by 5 and state a reason why.
- Tell whether the integer is divisible by 9 and state a reason why.

1. 5,439

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

2. 12,345,678

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

3. 1,005

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

4. 378

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

5. 548,490

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

6. 3,111

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

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In 7 and 8, tell which integer(s) in 1-6 on the first page is/are divisible by the given number. Explain why.

7. 18 \_\_\_\_\_  
\_\_\_\_\_8. 45 \_\_\_\_\_  
\_\_\_\_\_

In 9 and 10, prove the statement.

9. If a 5-digit number is subtracted from the number formed by reversing its digits, then the difference is divisible by 9.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. If a 5-digit number is subtracted from the number formed by reversing its digits, then the difference is divisible by 99.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

In 11-14, a number written in base 10 is given. What is the value of  $x$  if the number is divisible by the indicated number?

11. The number  $x,486$  is divisible by 9 if  $x \neq 0$ . \_\_\_\_\_12. The number  $52x$  is divisible by 15. \_\_\_\_\_13. The number  $115x$  is divisible by 18. \_\_\_\_\_14. The number  $x15$  is divisible by 45. \_\_\_\_\_