



Name \_\_\_\_\_ Date \_\_\_\_\_

## Dividing Integers (Pages 81–83)

Since division is the inverse operation for multiplication, the rules for dividing integers are the same as for multiplying integers.

<b>Dividing Integers</b>	The quotient of two integers with the same sign is positive.
	The quotient of two integers with different signs is negative.

### EXAMPLES

**A** Find  $\frac{-144}{12}$ .

The two integers have different signs.  
The quotient is negative.

$$\frac{-144}{12} = -12$$

**B** Find  $-36 \div (-12)$ .

The two integers have the same sign.  
The quotient is positive.

$$-36 \div (-12) = 3$$

### Try These Together

1. Solve  $a = \frac{-15}{3}$ .

HINT: Are the signs the same or different?

2. Solve  $20 \div (-2) = b$ .

HINT: Will the value for  $b$  be positive or negative?

### PRACTICE

Solve each equation.

3.  $-10 \div (-5) = c$

4.  $-36 \div 3 = d$

5.  $p = 56 \div 8$

6.  $j = \frac{-72}{-12}$

7.  $50 \div (-5) = g$

8.  $m = \frac{-16}{8}$

9.  $-125 \div 5 = r$

10.  $\frac{30}{5} = s$

11.  $-42 \div (-6) = t$

12.  $40 \div (-8) = q$

Evaluate each expression if  $r = -9$ ,  $s = 3$ , and  $t = -12$ .

13.  $t \div s$

14.  $18 \div r$

15.  $r \div s$

16.  $\frac{81}{s}$

17. **Taxes** In 1995, the Albanos owed \$2,000 in taxes. For 2000, they only owed \$1,500 in taxes. What was the average change in the amount of taxes they owed each of these 5 years?



18. **Standardized Test Practice** In a board game, Namid rolled “move back 3 spaces” 7 times in a row. How many spaces did he move all together?

**A** 2.5

**B** -4

**C** 10

**D** -21

Answers: 1. -5 2. -10 3. 2 4. -12 5. 7 6. 6 7. -10 8. -2 9. -25 10. 6 11. 7 12. -5 13. -4 14. -2 15. -3 16. 27 17. -\$100 18. D