

**1-6****Study Guide and Intervention**

7NS1.2, 7AF1.3

***Multiplying and Dividing Integers***

Use the following rules to determine whether the product or quotient of two integers is positive or negative.

- The product of two integers with different signs is negative.
- The product of two integers with the same sign is positive.
- The quotient of two integers with different signs is negative.
- The quotient of two integers with the same sign is positive.

**Example 1** Find  $7(-4)$ . $7(-4) = -28$  The factors have different signs. The product is negative.**Example 2** Find  $-5(-6)$ . $-5(-6) = 30$  The factors have the same sign. The product is positive.**Example 3** Find  $15 \div (-3)$ . $15 \div (-3) = -5$  The dividend and divisor have different signs. The quotient is negative.**Example 4** Find  $-54 \div (-6)$ . $-54 \div (-6) = 9$  The dividend and divisor have the same sign. The quotient is positive.**Exercises****Multiply or divide.**

1.  $8(-8)$

2.  $-3(-7)$

3.  $-9(4)$

4.  $12(8)$

5.  $33 \div (-3)$

6.  $-25 \div 5$

7.  $48 \div 4$

8.  $-63 \div (-7)$

9.  $(-4)^2$

10.  $\frac{-75}{15}$

11.  $-6(3)(-5)$

12.  $\frac{-143}{-13}$

**Evaluate each expression if  $a = -1$ ,  $b = 4$ , and  $c = -7$ .**

13.  $3c + b$

14.  $a(b + c)$

15.  $c^2 - 5b$

16.  $\frac{a - 6}{c}$