

# 4.19

## Product of Two Linear Functions

### • Example 1

Given  $f(x) = x - 1$  and  $g(x) = x + 5$ , find  $f \cdot g$ .

$$(f \cdot g)(x) = f(x) \cdot g(x) = (x - 1)(x + 5) = x^2 + 5x - x - 5 = x^2 + 4x - 5$$

### ● ● ● CHECK YOURSELF 1

Given  $f(x) = x - 3$  and  $g(x) = x + 2$ , find  $f \cdot g$ .

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### ● ● ● CHECK YOURSELF ANSWER

1.  $(x - 3)(x + 2) = x^2 - x - 6$ .

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# 4.19 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

Find  $f \cdot g$ .

1.  $f(x) = 2x - 1$     $g(x) = x - 3$

2.  $f(x) = -x + 3$     $g(x) = x + 4$

3.  $f(x) = 3x + 2$     $g(x) = 2x - 1$

4.  $f(x) = -3x + 5$     $g(x) = -x + 2$

5.  $f(x) = x - 1$     $g(x) = x + 1$

6.  $f(x) = x + 2$     $g(x) = 2x + 4$