

## 6.21

# Ratio of Quadratic Polynomials: Problem Type 1

**• Example 1**

Write each fraction in simplest form.

$$\begin{aligned}\frac{3x^2 - 3}{x^2 - 2x - 3} &= \frac{3(x-1)\cancel{(x+1)}}{(x-3)\cancel{(x+1)}} \\ &= \frac{3(x-1)}{x-3}\end{aligned}$$

**• • • CHECK YOURSELF 1**

Simplify.

$$\frac{a^2 - 5a + 6}{3a^2 - 6a}$$

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**• • • CHECK YOURSELF ANSWER**

1.  $\frac{a-3}{3a}$ .

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# 6.21 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

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

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

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

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

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

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

Write each fraction in simplest form.

1.  $\frac{4w^2 - 20w}{w^2 - 2w - 15}$

2.  $\frac{m^2 - 2m - 3}{9 - m^2}$

3.  $\frac{x^2 - 6x - 16}{x^2 - 64}$

4.  $\frac{y^2 - 25}{y^2 - y - 20}$

5.  $\frac{25 - a^2}{a^2 + a - 30}$

6.  $\frac{2x^2 - 7x + 3}{9 - x^2}$