

5.10

Dividing Rational Expressions

• Example 1

Simplify the following expression.

$$\frac{6}{x^2} \div \frac{9}{x^3} = \frac{6}{x^2} \cdot \frac{x^3}{9} = \frac{2x}{3}$$

● ● ● CHECK YOURSELF 1

Simplify.

$$\frac{4}{x^5} \div \frac{12}{x^3}$$

● ● ● CHECK YOURSELF ANSWER

1. $\frac{1}{3x^2}$

5.10 Exercises

Name _____

Section _____

Date _____

A N S W E R S

1. _____

2. _____

3. _____

4. _____

5. _____

Simplify.

1. $\frac{5}{x^2} \div \frac{10}{x}$

2. $\frac{w^2}{3} \div \frac{w}{9}$

3. $\frac{3p}{5} \div \frac{9p^2}{10}$

4. $\frac{5x^2}{7y^3} \div \frac{10}{21xy}$

5. $\frac{12x^4y^7}{35z^6} \div \frac{9x^3y^2}{14z^3}$