

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**Module 15** Simplifying Rational Expressions  
**Lesson 3** Multiplying and Dividing Rational Expressions

**guided notes**

**Lesson Objectives**

- Multiply rational expressions.
- Divide rational expressions.
- Simplify complex fractions.

The product of  $\frac{a}{b} \cdot \frac{c}{d} =$  \_\_\_\_\_, where  $b, d \neq 0$ .

For this entire lesson no denominator of a rational expression has a value of zero.

1 Simplify:  $\frac{t+6}{9t^2+63t+54} \cdot (3t+18)$ . \_\_\_\_\_

To divide rational expressions, multiply the first expression by the \_\_\_\_\_ of the second expression.

A \_\_\_\_\_ is a fraction whose numerator or denominator includes another fraction.

2 Simplify:  $\frac{4}{5s^2} \div \frac{7}{6s^2+9s}$ . \_\_\_\_\_

To multiply rational expressions, multiply numerator by numerator and denominator by denominator.



