



guided notes

NAME _____

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

Lesson Objectives

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

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

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

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

To divide rational expressions, multiply the first expression by the **reciprocal** _____ of the second expression.

A **complex fraction** _____ is a fraction whose numerator or denominator includes another fraction.

2 Simplify: $\frac{4}{5s^2} \div \frac{7}{6s^2+9s} \cdot \frac{24s+36}{35s}$ _____

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

