## NAME

Module 15 Simplifying Rational Expressions
Lesson 4 Adding and Subtracting Rational Expressions

## Lesson Objectives

- Add rational expressions.
- Subtract rational expressions.

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

## Adding and Subtracting Rational Expressions

To add or subtract rational expressions with like denominators, add or
subtract the numerators $\qquad$ keep the common
denominator , and simplify
if necessary.
(1) Simplify: $\frac{x}{x+1}+\frac{1}{x+1}$. 1

When subtracting two rational expressions, put the second numerator in parentheses.

To add or subtract rational expressions with unlike denominators, find the least common denominator . Write equivalent
fractions using the least common denominator. Then, add or subtract the fractions with like denominators
(2) Simplify: $\frac{4}{a+2}-\frac{3}{a-2} \cdot \frac{a-14}{(a+2)(a-2)}$

