# Adding and Subtracting Dissimilar Rational Algebraic **Expressions**

How to Add or Subtract Dissimilar Rational Algebraic Expressions:

- 1. Change the expressions into similar rational algebraic expressions using the least common denominator or LCD.
- 2. Proceed as in adding or subtracting similar fractions.

### **Practice Exercises**

Perform the indicated operation.

1. 
$$\frac{3}{x+1} + \frac{4}{x}$$

2. 
$$\frac{x+8}{x^2-4x+4} + \frac{3x-2}{x^2-4}$$

3. 
$$\frac{2x}{x^2-0}-\frac{3}{x-3}$$

$$3. \quad \frac{2x}{x^2 - 9} - \frac{3}{x - 3}$$
$$4. \quad \frac{3}{x^2 - x - 2} - \frac{2}{x^2 - 5x + 6}$$

5. 
$$\frac{x+2}{x} - \frac{x+2}{2}$$

Perform the indicated operation.

1. 
$$\frac{a}{a-b} - \frac{b}{a+b}$$

2. 
$$\frac{3}{2x+1} + \frac{5}{3x-2}$$

$$3 \quad \frac{3a+12}{2a-8} + \frac{a+4}{a-4}$$

$$4. \quad \frac{y+1}{y} + \frac{y-1}{y+1}$$

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5. 
$$\frac{2x}{x^2 - 4x + 4} - \frac{1}{x-2}$$

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