w↑

$$\frac{x^2 - 2x - 15}{x^2 + x - 6} \cdot \frac{x^2 - 4}{x^2 - 9}$$

$$\frac{x^2 - 3x - 28}{x^2 + 9x + 20} \div \frac{x^2 - 9}{x^2 - 4x - 21}$$

Adding and Subtracting Rational Expressions

Section 11.6

Steps to Follow

1. Factor anywhere you can

2. Find a common denominator (if you have to)

3. Get rid of parentheses on top

4. Combine like terms on top

5. Make sure your final fraction is reduced

Examples

- $\dfrac{4}{5x} + \dfrac{x-5}{5x}$

- $\dfrac{6}{x+2} + \dfrac{10x+4}{x+2}$

Examples

- $\dfrac{-12}{2x^2} - \dfrac{20}{2x^2}$

- $\dfrac{2}{5x} - \dfrac{3}{10x}$

Examples

- $\dfrac{5}{2x} + \dfrac{7}{3x}$

- $\dfrac{2}{x+1} + \dfrac{3}{x-2}$

Examples

- $\dfrac{x+2}{x+5} + \dfrac{x}{x-9}$

- $\dfrac{6x}{3x-2} + \dfrac{2x}{2x+1}$

Examples

- $\dfrac{7}{3x+6} + \dfrac{2}{x+2}$

- $\dfrac{x}{x^2-5x+6} - \dfrac{3}{x^2-5x+6}$

Examples

- $\dfrac{x+2}{x^2-9} - \dfrac{x}{x+3}$

- $\dfrac{x+1}{x+2} - \dfrac{x+3}{x+4}$