

MATH 1010 ~ Intermediate Algebra Chapter 6: RATIONAL EXPRESSIONS, EQUATIONS AND FUNCTIONS

Section 6.3: Adding and Subtracting Rational Expressions

Objectives:

- * Add rational expressions.
- * Subtract rational expressions.

$$\frac{2}{3x} + \frac{3}{5x} \qquad \frac{2x}{3-x} - \frac{3x}{5+x}$$

Adding Rational Expressions With Like Denominators

a)
$$\frac{16+x}{5x} - \frac{11-x}{5x}$$

b)
$$\frac{3}{3x-2} + \frac{5x}{3x-2}$$

Adding or Subtracting if the Denominators are Different

a) $\frac{6}{7x} + \frac{-2}{5x}$

b) $\frac{2}{x-2} + \frac{3}{x+1}$

c) $\frac{3x}{x^2-9} + \frac{5}{3-x}$

d) $\frac{2x-5}{6x+9} - \frac{4}{2x^2+3x} + \frac{1}{x}$

$$\text{e) } \frac{x}{x^2 + 15x + 50} + \frac{7}{x + 10} - \frac{x - 1}{x + 5}$$