

## 11.6 Adding and Subtracting Rational Expressions

Assignment:

To add fractions with like denominators:

Keep the common denominator the same...Add like terms in the numerator

To subtract fractions with like denominators:

Keep the common denominator the same...Switch the signs in the second numerator and then add like terms.

To add or subtract fractions with unlike denominators:

Least common denominator:

Examples

1. Simplify.

a.  $\frac{3y}{y+5} + \frac{4}{y+5}$

$$\frac{3y+4}{y+5}$$

b.  $\frac{n-3}{2n} + \frac{3}{2n}$

$$\frac{n-3+3}{2n}$$

c.  $\frac{-1}{2x^2-7x+5} + \frac{3x-3}{2x^2-7x+5}$

306  $\frac{2x-2}{2x^2-7x+5}$

$$2x^2 - 5x - 2x + 5$$
$$x(2x-5) - 1(2x-5)$$

$$\frac{2(x-1)}{(x-1)(2x-5)} = \frac{2}{2x-5}$$