**6.3 Binomial Radical Expressions**.  
Objective: To add and subtract radical expressions

**Like Radicals**: if two radicals have the same index and radicand

* andare like radicals

**Addition and Subtraction:** you can only add/subtract if they are like radicals

**Adding and Subtracting Roots and Radicals**

To add or subtract like radicals, use the distributive property

**Examples:**

1. 
2. 

**Simplifying Before Adding or Subtracting:**

1.  Can’t simplify because the radicands are different,   
    but can we simplify either of them first?

1. =
2. =

**Multiplying Binomial Radical Expressions:**

Multiply/FOIL as you normally would. Then combine like radicals.

**Example:**

This is called Multiplying Conjugates. What do you notice happened?

-the radicals cancel; will always happen when multiplying by conjugates   
 (think back to first semester)

**Rationalizing the Denominator**

Purpose: To eliminate radicals from the denominator… remember the importance of a conjugate in eliminating a radical

**Example:**

=

Conjugate “fancy one”

**HMWK: page 378 #1-12, 16, 17-29 (odd), 33-35 (odd)**