

# Mr. B's Algebra Connections



## Rockin' at Radicals

### Fall 2005



**Product Rule for Radicals:** If  $\sqrt{a}$  and  $\sqrt{b}$  are real numbers, then  $\sqrt{a * b} = \sqrt{a} * \sqrt{b}$

**Quotient Rule for Radicals:** If  $a$  and  $b$  are real numbers and  $b \neq 0$ , then  $\sqrt{a / b} = \sqrt{a} / \sqrt{b}$

**Like Radicals:** Radical expressions with same index & same radicand

**Combine Like Radicals:** Use the distributive property, product and quotient rules may be used to simplify products & quotients of radicals

**Rationalizing the Denominator:** Eliminate radicals in denominator

**Conjugate** of  $(a + b)$  is  $(a - b)$

**To Rationalize a Denominator** that is sum or difference of radicals, multiply numerator & denominator by conjugate of denominator