

## I. Dividing Radicals (p.563):

$$\frac{\sqrt[n]{a}}{\sqrt[n]{b}} = \sqrt[n]{\frac{a}{b}}$$

## II. Examples (p.569): Problems #8, **12**, 14, 16

## III. Rationalize the denominator, Part 1 (p.565):

A square root which is not a “perfect” square root is an irrational number...

$\frac{a}{\sqrt{b}}$  has an irrational denominator, which may be “**rationalized**” as follows...

$$\frac{a}{\sqrt{b}} \cdot \frac{\sqrt{b}}{\sqrt{b}} = \underline{\hspace{2cm}}$$

similarly,

$$\frac{a}{\sqrt[3]{b}} \cdot \frac{\sqrt[3]{b}}{\sqrt[3]{b}} \cdot \frac{\sqrt[3]{b}}{\sqrt[3]{b}} = \underline{\hspace{2cm}} \quad (\text{rationalize cube root})$$

VI. Examples (p.569): Problems #20,**28**,30,**32**,42,  
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V. Rationalize the denominator, Part 2 (p.566):

A. Conjugate of “ $a + b$ ” is “ $a - b$ ”

$$\text{B. } (\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b}) = \frac{\quad}{\text{F} \quad \text{O} \quad \text{I} \quad \text{L}}$$

$$= \underline{\hspace{2cm}}$$

*i.e.*, the product of conjugates is a \_\_\_\_\_ #

VI. Examples (p.569): Problems #54,**58**,60

HW: pp.569-572 / Problems #1-57(odd),65-93(odd)

Read pp.573-575 (section 8.6)