

Name: _____

Date: _____ Block: _____

Chapter 4.4: Mixed Entire Radicals

Just like fractions, equivalent expressions for any number have the same value.

Multiplication of Radicals:

$$\sqrt[n]{ab} = \sqrt[n]{a} \cdot \sqrt[n]{b}$$

- n is a _____ number (set of 1, 2, 3...)
- a and b are _____ numbers (rational & irrational)

Radicals:

Mixed Radical	Entire Radical

Example 1:

Write each entire radical as a mixed radical.

a) $\sqrt{24}$

b) $\sqrt[3]{24}$

Example 2:

We can also use prime factorization to simplify a radical.

$$\sqrt{80}$$

Example 3: Write each entire radical as a mixed radical.

a) $\sqrt{63}$

b) $\sqrt[3]{108}$

c) $\sqrt[4]{128}$

Example 4: Write each mixed radical as an entire radical.

a) $7\sqrt{3}$

b) $2^3\sqrt{4}$

c) $2^5\sqrt{3}$

Homework:

P. 192 #1 – 12, 14, 15, 16, 17