Algebra 2

5-02 Properties of Rational Exponents and Radicals

Properties of Rational Exponents • $x^m \cdot x^n = x^{m+n}$ • $(xy)^m = x^m n^m$ • $(\frac{x}{x^n} = x^{m-n})$ • $(\frac{x}{y})^m = \frac{x^m}{y^m}$ • $x^{-m} = \frac{1}{x^m}$ • $x^{-m} = \frac{1}{x^m}$ (4³·w³)^{-1/3} $\frac{t}{t^{\frac{3}{4}}}$

Using Properties of Radicals

Product Property $\rightarrow \sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$ Quotient Property $\rightarrow \sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$



Adding and Subtracting Roots and Radicals

1. Simplify the _____

2. _____like terms



Writing Radicals in Simplest Form

- 1. Remove any _____ roots
- 2. Rationalize _____



242 #1-49 every other odd, 51, 55, 59, 63, 67, 71, 73, 81, 85, 87, 93, 95 = 25