November 29, 2017

$\sqrt[n]{a^m} = a^{\frac{m}{n}}$

Radical Form — Exponential Form

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Examples

* Perfect Roots

$\sqrt{64} = 8$; $8^2 = 64$

$\sqrt[3]{512} = 8$; $8^3 = 512$

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$x^2 - 9 = 0$

Difference of two Squares

$(x+3)(x-3) = 0$

* Recall Zero Factor Theorem $ab = 0$

① $x+3=0$, $x=-3$

② $x-3=0$, $x=3$

$x^2 - 9 = 0$

$+9 \quad +9$

$\sqrt{x^2} = \pm\sqrt{9}$

$x = \pm 3$

using Square Root Property to solve.

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$x^2 - 5 = 0$

$\sqrt{x^2} = \pm\sqrt{5}$ ← not a Perfect Root

$x = \pm\sqrt{5}$

$\approx \pm 2.23607$

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Do 8.1 Problems

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8.2 - Simplifying Radicals

* Perfect Roots

$\sqrt{25} = 5$

$\sqrt[3]{216} = 6$

$\sqrt[4]{81} = 3$

} numeric

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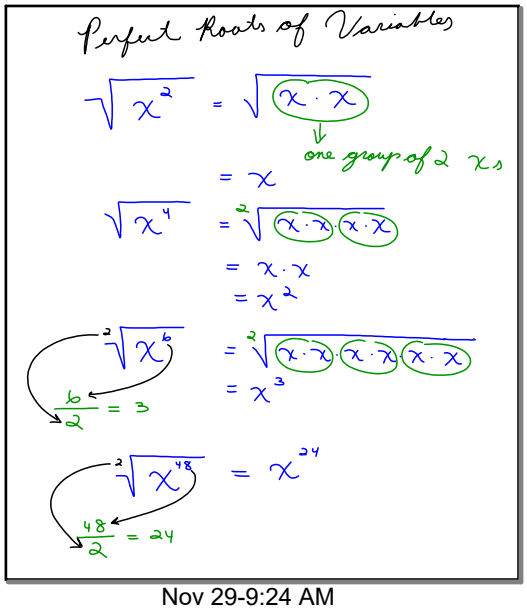

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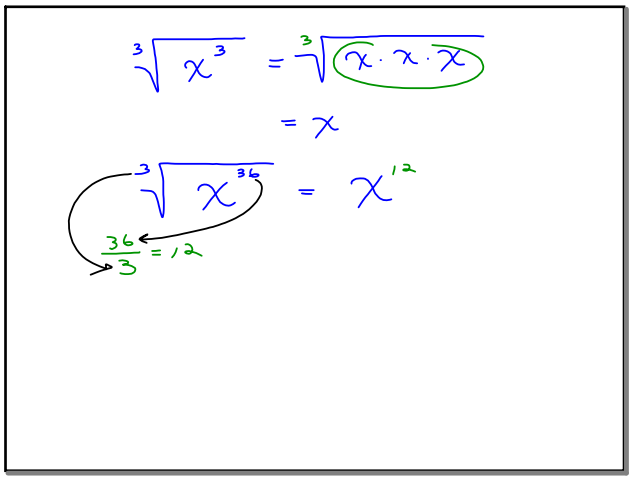

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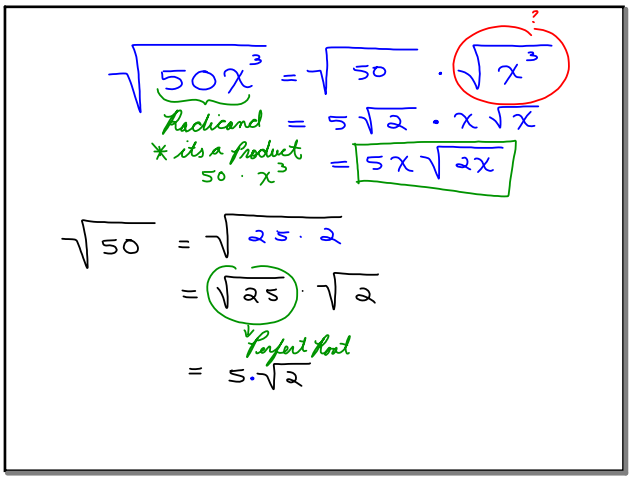

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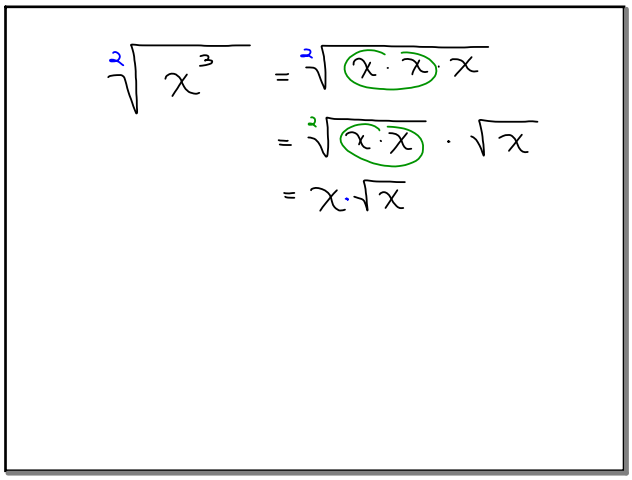

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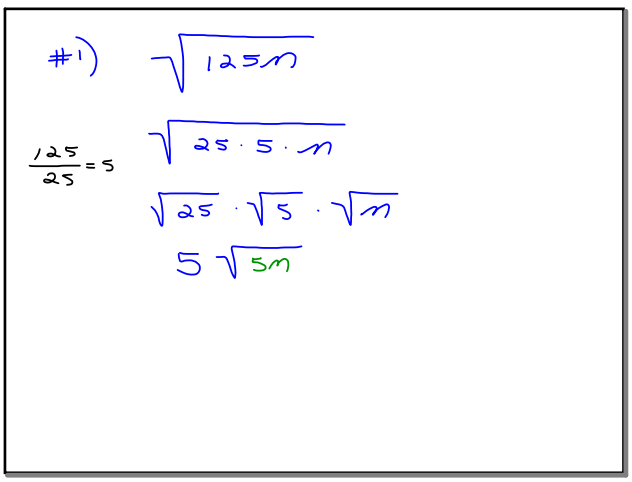

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