March 24, 2015

Quiz #7 - Friday

- 9.1 Graphing Square Root Functions
- 9.2 (Simplifying)

see 10.3 Handout

① $\sqrt[n]{ab} = \sqrt[n]{a} \cdot \sqrt[n]{b}$

② $\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$

- 10.2 Rational Exponents

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$(-3)^4 = (-3)\cdot(-3)\cdot(-3)\cdot(-3)$
$= 9 \cdot (-3)\cdot(-3)$
$= -27 \cdot (-3)$
$= 81$

$-3^4 = (-1)\cdot 3^4$
$= (-1)\cdot 3\cdot 3\cdot 3\cdot 3$
$= (-3)\cdot 3\cdot 3\cdot 3$
$= (-9)\cdot 3\cdot 3$
$= (-27)\cdot 3$
$= -81$

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$\left(81^{1/4} x^{3/4}\right)^2$ ← base

$\left(81^{1/4}\right)^2 \cdot \left(x^{3/4}\right)^2$

$81^{2/4} \cdot x^{6/4}$

$81^{1/2} \cdot x^{3/2}$

$\sqrt{81} \cdot \sqrt{x^3}$

$9 \cdot \sqrt{(x)^2 \cdot x^1}$

$9x\sqrt{x}$

$x^2 y^4$

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$\left(x^2 y\right)^{1/4} x^{3/2} y^{-3/8}$

$x^{1/2} y^{1/4} x^{3/2} y^{-3/8}$

$x^{\frac{1}{2}+\frac{3}{2}=\frac{4}{2}=2} \cdot y^{\frac{1}{4}+\left(-\frac{3}{8}\right)=\frac{2-3}{8}=-\frac{1}{8}}$

$x^2 \cdot y^{-1/8}$

$\frac{x^2}{y^{1/8}}$

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$\sqrt[3]{x^3 y^6} = x^{3/3} \cdot y^{6/3}$

$= x^1 \cdot y^2$

$= xy^2$

$\sqrt[3]{(x^1)^3 \cdot (y^2)^3}$

xy^2

Mar 24-12:00 PM