


Rational Exponents - Simplifying Expressions with Rational Exponents

Directions: Write each expression in simplest form. Use your answer to navigate through the maze. Show your work.

START $(64x^3)^{\frac{4}{3}}$	$\left(\frac{\sqrt[4]{x^3}}{x^2}\right)^2$	$\left(\frac{x^{\frac{1}{2}}x^{\frac{5}{4}}}{10x^{\frac{4}{3}}}\right)^0$	Good Job!!!  The End			
$256x^{12}$	$\frac{\sqrt{x}}{x^3}$	1				
$64x^4$	$256x^4$	$3x^4y^9$	$\frac{9x^4}{9}$	$\frac{9}{x^4}$		
$(\sqrt{x})^{\frac{2}{3}}$	$(49x^4)^{\frac{1}{2}}$	$(81\sqrt{x})^{\frac{1}{2}}$	$(27x^{-6})^{\frac{2}{3}}$			
$7x^2$	$\frac{1}{7x^2}$	$\frac{x^4}{9}$				
$\sqrt[3]{x}$	x^3	$49x^2$	16	$\frac{x^4}{y^3}$	$\frac{1}{2x^6}$	$\frac{\sqrt{x^6}}{2x}$
$(10,000x^8)^{\frac{5}{4}}$	$(32x^{15})^{0.8}$	$\left(x^{\frac{2}{3}}y^{\frac{1}{2}}\right)^{-6}$	$(32\sqrt[3]{x^5})^{\frac{1}{5}}$			
$100,000x^{10}$	$32x^{12}$	$\frac{1}{x^4y^3}$				
$100,000x^{40}$	$16x^{30}$	$16x^{12}$	$7x^3$	$125x$	x^4y^4	$\frac{1}{x^2}$
$(64x^4)^{\frac{3}{2}}$	$(343x^9)^{\frac{1}{3}}$	$(25\sqrt[3]{x^2})^{\frac{3}{2}}$	$(x^8)^{\frac{1}{4}}$			
$512x^6$	$\frac{1}{7x^3}$	$25x^8$				