

Daily Agenda

Learning Target: I can simplify powers without a calculator.

Homework

7.1 Day 4 WS
Do this without a calculator or table

Assessments

7.1 Quiz 1/18
No Calculator

If you don't have time to do it right, when will you have time to do it?
-John Wooden

Nov 15-8:24 PM

$$\left(\frac{-729}{64}\right)^{-2/3} = \left(\frac{-64}{729}\right)^{2/3} = \left(\frac{-4^3}{9^3}\right)^{2/3}$$

$$\frac{(-4^3)^{2/3}}{(9^3)^{2/3}} = \frac{(-4)^2}{9^2} = \frac{16}{81}$$

Jan 13-11:03 AM

$$\textcircled{13} (64x^2)^{-1/6} (32x^5)^{-2/5}$$

$$(2^6 x^2)^{-1/6} (2^5 x^5)^{-2/5}$$

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

$$2^{-3} x^{-7/3} = \frac{1}{2^3 x^{7/3}} = \frac{1}{8x^{7/3}}$$

$-\frac{1}{3} + -2$
 $-\frac{1}{3} + -\frac{6}{3}$

Jan 13-11:05 AM

$$6) \left(\frac{9}{49}\right)^{-3/2} = \left(\frac{3^2}{7^2}\right)^{-3/2} = \left(\frac{7^2}{3^2}\right)^{3/2}$$

$$\frac{3^{-3}}{7^{-3}} = \frac{7^3}{3^3} = \frac{343}{27}$$

$\frac{7^3}{3^3}$
 $\frac{343}{27}$

Jan 13-11:08 AM

Simplify $\sqrt[3]{88} \div \sqrt[3]{11}$

$$\frac{\sqrt[3]{88}}{\sqrt[3]{11}} = \sqrt[3]{\frac{88}{11}} = \sqrt[3]{8} = 2$$

$$\sqrt{\frac{49}{4}} = \frac{\sqrt{49}}{\sqrt{4}} = \frac{7}{2}$$

Oct 20-11:56 AM

Simplify $\sqrt[3]{81} \div \sqrt[5]{729}$

$$\frac{\sqrt[3]{3^4}}{\sqrt[5]{3^6}} = \frac{3^{4/3}}{3^{6/5}} = 3^{2/15}$$

$$\frac{4}{3} - \frac{6}{5} = \frac{20}{15} - \frac{18}{15}$$

Oct 20-11:56 AM

Simplify $\sqrt{10^{2.6} \times 10^{.5} \div 10^{1.5}}$

$$\frac{\sqrt{10^{3.1}}}{10^{1.5}} = \sqrt{10^{1.6}} = 10^{\frac{1.6}{2}} = 10^{.8}$$

Oct 20-11:56 AM

$$\begin{aligned} & \sqrt[3]{(2^{8.1})(2^{3.2}) \div (4^{1.7})} \\ & \sqrt[3]{(2^{8.1})(2^{3.2}) \div (2^2)^{1.7}} \\ & \sqrt[3]{(2^{8.1})(2^{3.2}) \div (2^{3.4})} \\ & \sqrt[3]{\frac{2^{11.3}}{2^{3.4}}} = \sqrt[3]{2^{7.9}} = 2^{\frac{7.9}{3}} \end{aligned}$$

Jan 13-11:24 AM

Solve: $64^x = 8$

$$(8^2)^x = 8^1 \quad 2x = 1$$

$$x = \frac{1}{2}$$

$$8^{2x} = 8^1$$

$$8^x = 16$$

$$2^{3x} = 2^4$$

$$3x = 4$$

$$x = \frac{4}{3}$$

Oct 20-11:56 AM

Solve: $512^x = 4$

$$2^{9x} = 2^2$$

$$9x = 2$$

$$x = \frac{2}{9}$$

Oct 20-11:56 AM

Solve: $144^x = 1728$

Oct 20-11:56 AM