

Radicals

Example Problems

April 30, 2020

Problem 1: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{\sqrt{48}}{3^{1/2}}$$

Problem 1: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{\sqrt{48}}{3^{1/2}} = \frac{\sqrt{48}}{\sqrt{3}}$$

Problem 1: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{\sqrt{48}}{\sqrt{3}} = \sqrt{\frac{48}{3}}$$

Problem 1: Evaluating Radical Expressions

Simplify the radical expression.

$$\begin{aligned}\sqrt{16} \\ = \\ 4\end{aligned}$$

Problem 2: Evaluating Radical Expressions

Simplify the radical expression.

$$\left(\frac{1}{4}\right)^{-1/4} \times (64)^{-1/4}$$

Problem 2: Evaluating Radical Expressions

Simplify the radical expression.

$$\begin{aligned} \left(\frac{1}{4}\right)^{-1/4} \times (64)^{-1/4} \\ = \\ \left(\frac{64}{4}\right)^{-1/4} \end{aligned}$$

Problem 2: Evaluating Radical Expressions

Simplify the radical expression.

$$\begin{aligned}(16)^{-1/4} \\ = \\ \frac{1}{(16)^{1/4}}\end{aligned}$$

Problem 2: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{1}{(16)^{1/4}}$$
$$=$$
$$\frac{1}{2}$$

Problem 3: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{(4)^{1/5}}{\sqrt[5]{128}}$$

Problem 3: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{(4)^{1/5}}{\sqrt[5]{128}} = \sqrt[5]{\frac{4}{128}}$$

Problem 3: Evaluating Radical Expressions

Simplify the radical expression.

$$\sqrt[5]{\frac{4}{128}} = \sqrt[5]{\frac{1}{32}}$$

Problem 3:Evaluating Radical Expressions

Simplify the radical expression.

$$\sqrt[5]{\frac{1}{32}} = \frac{1}{\sqrt[5]{32}}$$

Problem 3: Evaluating Radical Expressions

Simplify the radical expression.

$$\frac{1}{\sqrt[5]{32}}$$
$$=$$
$$\frac{1}{2}$$

Congrats!

I hope you learned something and enjoyed this video!