

- 2.1 Exponents Quiz
- Homework Questions, Objective from last time demonstrate understanding of exponent properties with radicals.
- Objective: Demonstrate understanding of parent functions and transformations by scoring at least 80% on the quiz.
Demonstrate understanding of simplifying radicals by scoring a 3 out of 5 on the 2.2 Simplifying Radicals quiz and 80% on the homework worksheet.
- Homework Questions
- 2.2 Simplifying Radicals
- Go over Unit 2 Outline
- Homework 2.2 Simplifying Radicals

Sep 19-8:20 PM

Homework Questions

(26)

$$\left(\frac{x^{1/2}}{x^{-1/2}}\right)^{-3/2}$$

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

$$\frac{x^{-3/4}}{x^{3/4}}$$

$$x^{-6/4} = x^{-3/2}$$

Sep 19-8:24 PM

(23)

$$\left(k^{3/2}\right)^2$$

$$k^{3/2 \cdot 2} = k^3$$

Sep 21-7:44 AM

(25)

$$\left(\frac{n^{-1/2}}{n^{3/2}}\right)^{-1}$$

$$\frac{n^{-1/2 \cdot -1}}{n^{3/2 \cdot -1}} = \frac{n^{1/2}}{n^{-3/2}}$$

$$\frac{n^{1/2}}{n^{-3/2}} = n^{1/2 - (-3/2)} = n^{1/2 + 3/2} = n^2$$

Sep 21-7:45 AM

2.2 Simplifying Radicals

Simplifying Radicals: It is in simplest form when it has no square factors or it is not a fraction.

Remember you need to match the number of the index to the number of terms in the radical before you can pull it out.

$$\sqrt{33} = \sqrt{3 \cdot 11}$$

$$\sqrt{18} = \sqrt{9 \cdot 2} = 3\sqrt{2}$$

$$\sqrt[3]{18} = \sqrt[3]{2 \cdot 3 \cdot 3} = 3\sqrt[3]{2}$$

Sep 19-8:24 PM

$$\sqrt{96x^4}$$

$$= \sqrt{16 \cdot 6 \cdot x^4}$$

$$= 4x^2\sqrt{6}$$

Sep 21-7:54 AM

$-7\sqrt{-72x^3y^4}$ $(\sqrt{-1})^2 = (i)^2$
 $i^2 = -1$
 $-1 = i^2$

$-7i\sqrt{72x^3y^4}$

$12 \quad 6$
 $\begin{matrix} \diagdown & \diagup \\ 4 & 3 \end{matrix}$ $x^3 y^4$
 $\begin{matrix} \diagdown & \diagup \\ 3 & 2 \end{matrix}$

$-7 \cdot 3 \cdot 2 \cdot i \sqrt{2x^3y^4}$
 $-42ixy^2\sqrt{2x}$
 $-42xy^2i\sqrt{2x}$

Sep 21-7:58 AM

$2x^3\sqrt[3]{62x^7}$

$9 \quad 18 \quad \text{XXXXXXXXXX}$
 $\begin{matrix} \diagdown & \diagup \\ 3 & 3 \end{matrix}$ $\begin{matrix} \diagdown & \diagup \\ 6 & 1 \end{matrix}$
 $\begin{matrix} \diagdown & \diagup \\ 3 & 2 \end{matrix}$ 32

$2 \cdot 3x^1 \cdot x^3 \sqrt{6x}$
 $6x^4 \sqrt{6x}$

Sep 21-8:03 AM

<https://www.youtube.com/watch?v=Ef2gOQbDv7M>
 • Watch till 4:20

Sep 19-9:02 PM

Ex 5

Sep 19-8:42 PM

Ex 6

Sep 19-8:42 PM

Ex 7

Sep 19-8:42 PM

Radical Jail...
Prison Break Edition:
Grab a white board and
marker!

$$\sqrt[3]{27} = 3$$

$$\sqrt{x}$$

Sep 19-8:43 PM

$$\sqrt{45a^2b}$$

Handwritten work showing prime factorization of 45 as 3*3*5 and a^2 as a*a. The final simplified form is $3a\sqrt{5b}$.

Sep 21-8:13 AM

(11) $\sqrt{192x}$

Handwritten work showing prime factorization of 192 as 2*2*2*2*2*3 and x as x. The final simplified form is $56\sqrt{3x}$.

Sep 21-8:28 AM

Homework Questions

Sep 19-9:00 PM