

keep scrolling to get
a sneak peek!

Help your Algebra 2 students practice **rewriting radical expressions and rational exponents**. Your students will benefit from being given a fun Thanksgiving themed activity to practice math while they have break on their brain!

REWRITING RADICALS & RATIONAL EXPONENTS

Thanksgiving Maze Worksheet

Name: _____ Date: _____

REWRITING RADICALS & RATIONAL EXPONENTS MAZE

Directions: Answer the question in the box that says "start". The answer will lead you to the next question. Keep answering the questions until you reach the "finish" box. If you don't see your answer, try again!

Name: **ANSWER KEY**

CONVERTING RADICALS & RATIONAL EXPONENTS MAZE

Directions: Answer the question in the box that says "start". The answer will lead you to the next question. Keep answering the questions until you reach the "finish" box. If you don't see your answer, try again!

Math with Ms. Rivera

Recording Sheet & Detailed Answer Key

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Why do you need this?



Providing feedback with self-checking activities will engage students to keep practicing!



Incorporate a Thanksgiving themed activity with your students WHILE mastering key Algebraic skills!

Converting Radicals & Rational Exponents Thanksgiving Maze

Name: _____ Date: _____

CONVERTING RADICALS & RATIONAL EXPONENTS MAZE

Directions: Answer the question in the box that says "start". The answer will lead you to the next question. Keep answering the questions until you reach the "finish" box. If you don't see your answer, try again!

Name: _____ Date: _____

CONVERTING RADICALS & RATIONAL EXPONENTS MAZE

Directions: Answer the question in the box that says "start". The answer will lead you to the next question. Keep answering the questions until you reach the "finish" box. If you don't see your answer, try again!

ANSWER KEY

Rewriting Radicals & Rational Exponents Thanksgiving Maze

skills used:

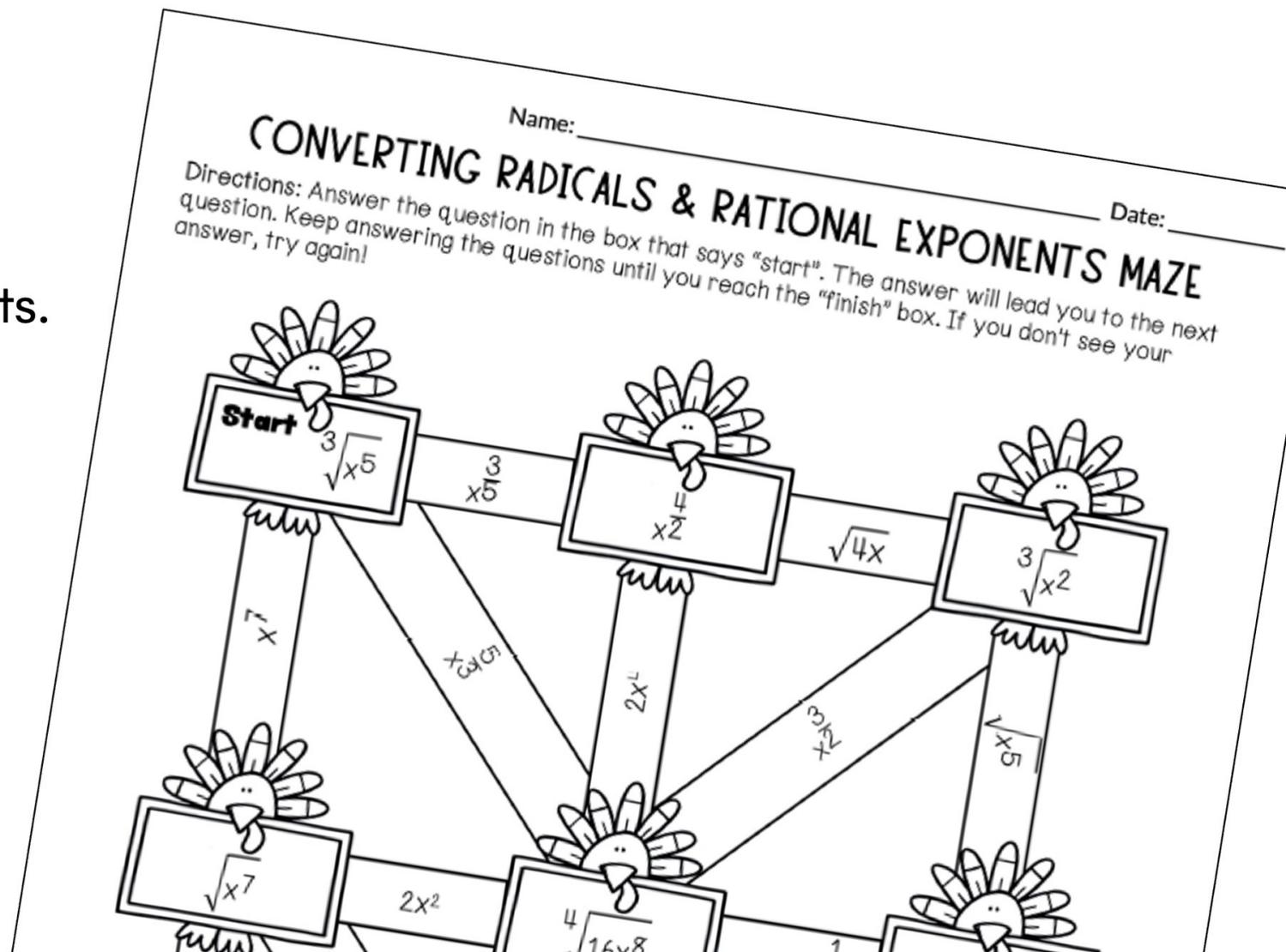
Converting between radical expressions and rational exponents.

standards covered:

CCSS: HSA-SSE.B.3, HSN-RN.A.2

TEKs: A2.7.G

VA SOLs: EO.A11.1.b



how to use this resource

This is a great individual practice activity to use when reviewing how to convert radical expressions to rational exponents and vice versa.

My favorite ways to use this maze worksheet is as a review station in November.

This is also a **substitute-friendly** assignment!

Name: **ANSWER KEY** Date: _____

CONVERTING RADICALS & RATIONAL EXPONENTS MAZE RECORDING SHEET

1. $\sqrt[3]{x^5} = x^{\frac{5}{3}}$

2. $\sqrt[4]{16x^8} = \sqrt[4]{16} \cdot \sqrt[4]{x^8} = 2x^2$

Name: _____ Date: _____

CONVERTING RADICALS & RATIONAL EXPONENTS MAZE

Directions: Answer the question in the box that says "start". The answer will lead you to the next question. Keep answering the questions until you reach the "finish" box. If you don't see your answer, try again!

3. $\sqrt{x^7} = x^{\frac{7}{2}}$

5. $(9x^6)^{1/2}$
 $9^{1/2} \cdot (x^6)^{1/2}$
 $\sqrt{9} \cdot x^3$
 $3x^3$

The maze contains the following boxes and connections:

- Start Box:** $\sqrt[3]{x^5}$
- Box 1 (Top Middle):** $\frac{3}{x^5}$
- Box 2 (Top Right):** $\sqrt[4]{x^2}$
- Box 3 (Top Far Right):** $\sqrt{4x}$
- Box 4 (Bottom Left):** $\sqrt[3]{x^2}$
- Box 5 (Bottom Middle):** x^7
- Box 6 (Bottom Far Left):** $\frac{7}{x^7}$
- Box 7 (Bottom Middle):** $\frac{7}{x^7}$
- Box 8 (Bottom Far Left):** $2x^2$
- Box 9 (Bottom Middle):** $2x^2$
- Box 10 (Bottom Far Left):** $\sqrt{x^7}$
- Box 11 (Bottom Middle):** $\frac{4}{\sqrt{16x^8}}$
- Box 12 (Bottom Far Left):** $\frac{4}{\sqrt{16x^8}}$
- Box 13 (Bottom Middle):** $(16x^8)^{\frac{1}{4}}$
- Box 14 (Bottom Far Left):** $\frac{2}{x^5}$
- Box 15 (Bottom Middle):** $\frac{2}{x^5}$
- Box 16 (Bottom Far Left):** $\frac{2}{x^5}$

You may also enjoy ...

RATIONAL EXPONENTS

Algebra 2 Guided Notes

RATIONAL EXPONENTS & RADICAL EXPRESSIONS		PROPERTIES OF RATIONAL EXPONENTS		RATIONAL EXPONENTS & RADICAL EXPRESSIONS	
Converting between radical expressions		Properties of Rational Exponents		Directions: Complete the table.	
a^m	$a^{\frac{m}{n}}$	Property		Radical Form	Rational Exponent Form
$a^{\frac{m}{n}}$	$\sqrt[n]{a^m}$	Product of Powers		$\sqrt{16}$	$16^{\frac{1}{2}}$
Directions: Write each expression in radical form.		Power of a Power		$(\sqrt{4})^3$	
Rational Exponents		Power of a Product			$25z^{\frac{1}{2}}$
$x^{\frac{3}{4}}$		Negative Exponent		$\sqrt[3]{64}$	
		Zero Exponent			$8^{\frac{2}{3}}$
		Quotient of Powers		$(\sqrt{9})^3$	
		Power of a Quotient			
		Directions: Use the properties of rational exponents.			
		1. $(6^{1/2} \cdot 4^{1/3})^2$	2. $(x^5 \cdot 3^5)^{-2}$		

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Answer key included

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RATIONAL EXPONENTS & RADICAL EXPRESSIONS

Differentiated Circuit Worksheet

Date: _____

ANSWER KEY

Directions: A circuit is a route that starts and ends at the same place. Start in the first box and solve the problem. Search through the remaining boxes for the answer you got for question 1. Now complete that question. Continue until you have completed the question. Record your path below.

1 → 4 → 10 → 9 → 5 → 7 → 2 → 8 →

Previous Answer: $x^{\frac{7}{2}}$ # 3 Previous Answer: $x^{\frac{5}{2}}$

1. Rewrite using the alternative form. $\sqrt[3]{x^5}$

2. Rewrite using the alternative form. $\sqrt{x^2}$

Previous Answer: $\frac{5}{\sqrt{2}}$ # 6 Previous Answer: $\frac{5}{3}$

3. Rewrite using the alternative form. $\sqrt{x^7}$

4. Rewrite using the alternative form. $\frac{4}{x^5 y^6}$

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2 versions + Answer key included

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SOLVING RATIONAL EXPONENT & RADICAL EQUATIONS

Color by Number Worksheet

Directions: Solve each problem. Check for extraneous solutions. Circle the answer. Your answers will determine how you color the grid page.

1. $3\sqrt{4-3x} = 21$

2. $3\sqrt{4-3x} = 21$

3. $x = 173$ Red

4. $x = 5$ Green

5. $x = -15$ Pink

6. $x = -10$ Blue

7. $4x - 1 + 6 = 9$

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Answer key included

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check it out!

Rational Expression Operations - Addition & Subtraction

Directions: Answer each question and type the question number with the matching answer in the answer column to the right.

#	Question	Answer	Type the matching question numbers here
1	$\frac{5}{x} + \frac{3}{x+1}$	$\frac{2x+1}{x+2}$	
2	$\frac{2}{x+4} - \frac{x^2}{x^2-16}$	$-\frac{1}{x^2-1}$	
3	$\frac{x+2}{x^2+4x+4} + \frac{2x}{x+2}$	$\frac{2x^2+2x+5}{x^2+x-2}$	
4	$\frac{x}{x-2} + \frac{3}{x-1}$	$\frac{-x^2+2x-8}{x^2-16}$	
5	$\frac{x}{4x+8} - \frac{1}{x^2+2x}$	$\frac{8x+5}{x^2+1}$	
6	$\frac{x+2}{x-1} + \frac{x-1}{x+2}$	$\frac{x^2-3x+7}{x^2-4}$	
7	$\frac{2x+1}{x^2-4} + \frac{x-3}{x+2}$	$\frac{x^2+2x-6}{x^2-3x+2}$	
8	$\frac{x^2+2x}{x^2-1} - \frac{x+1}{x-1}$	$\frac{x-2}{4x}$	

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hey there!

My name is Malia and I'm passionate about making learning and practicing math fun. I love creating engaging math resources for my students and I hope your students enjoy this activity too!

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