

Radical Functions & Rational Exponents Stations Activity

This Algebra 2 Stations Activity is a fun-filled cooperative set of task cards for ***Radical Functions & Rational Exponents Unit.***

This activity is designed to help your Algebra 2 students review key concepts at the end of the unit on ***Radical Functions and Rational Exponents.*** There are 292 questions divided into 8 stations. You will also find a student recording sheet on which to answer the prompts. Print and Go differentiation saves you valuable planning time.

Standards covered:

CCSS: : HSF.RN.A.1; HSF.RN.A.2; HSF.CN.A.1; HSF.REI.A.2; HSF.IF.A.1; HSF.1F.A.2; HSF.IF.C.7; HSF.IF.C.7B; HSF.BF.A.1B; HSF.BF.A.1C; HSF.BF.B.4; HSF.BF.B.4A; HSF.BF.B.4B; HSF.BF.B.4C; HSF.BF.B.4D

TEKS: A2.1(A), A2.1.(D), A2.1(E), A2.1(F), A2.1(G), A2.2(A), A2.2(B), A2.2(C), A2.2(D), A2.4(F), A2.4(G), A2.7(G), A2.7(H)

Teaching Suggestions:

- ❑ Use the set as a group activity for 2-4 per group .
- ❑ Use the cards as a review activity prior to assessing students.

Simplify each radical expression. Use absolute value symbols when needed.

1. $\sqrt{225x^4y^9}$
2. $\sqrt[3]{-81m^6n^9}$
3. $\sqrt[4]{64a^8b^{12}}$
4. $\sqrt[5]{-64x^6y^5}$

© 2015 Jean Adams (Flamingo Math™)

Multiply and simplify. Assume expressions represent nonneg numbers.

5. $\sqrt{x+2y}\sqrt{x-2y}$
6. $\sqrt[3]{8x}\sqrt[3]{x^4+5x^2}$
7. $\sqrt[3]{-12m^3n}\sqrt[3]{8m^4n^2}$
8. $\sqrt[3]{}\sqrt[4]{24a^3b^7}$

n Adams (Flamingo Math™)

A_1

Divide and Simplify. Assume that all expressions represent nonnegative numbers.

9. $\dfrac{\sqrt{125m^3n^4}}{\sqrt{5mn^2}}$
10. $\sqrt[3]{\dfrac{216x^8}{64x^2}}$
11. $\dfrac{\sqrt[4]{a^9b^3}}{\sqrt[4]{81ab^7}}$
12. $\dfrac{\sqrt{72xy}}{2\sqrt{2}}$

D

© 2015 Jean Adams (Flamingo Math™)

Solve. Check for extraneous solutions.

17. $\sqrt[3]{3y+6}+2=3$
18. $x-5=\sqrt{x+7}$

C

© 2015 Jean Adams (Flamingo Math™)

operation. Simplify, if possible.
expressions represent
numbers.

13. $5\sqrt{50}-3\sqrt{18}+9\sqrt{32}$
14. $2\sqrt[3]{125m^4}-5\sqrt[3]{8m}$
15. $(3-\sqrt{5})(4+\sqrt{5})$
16. $(6+\sqrt{7})(6-\sqrt{7})$

I

© 2015 Jean Adams (Flamingo Math™)

Rationalize and simplify.

19. $\frac{2\sqrt{3}}{5\sqrt{2}}$

20. $\frac{3}{5-\sqrt{2}}$

21. $\frac{\sqrt[3]{2m^4}}{\sqrt[3]{6n^4}}$

A$_2$

Write in radical form. Simplify if possible. Leave no negative exponents.

22. $(-64)^{\frac{2}{3}}$

23. $\left(3m^{\frac{2}{3}}\right)^{-3}$

24. $\left(144x^4\right)^{-\frac{1}{2}}$

25. $\left(\frac{2x^2}{64x^{12}}\right)^{\frac{2}{5}}$

L

© 2015 Jean Adams (Flamingo Math.com)

Write in exponential form. Simplify if possible.

26. $\sqrt[8]{256a^4b^8}$

27. $\sqrt[6]{\frac{x^{24}y^{12}}{64}}$

28. $\left(\sqrt[3]{-8a^6b^3}\right)^4$

29. $\sqrt[5]{-32m^{15}n^{10}}$

S

© 2015 Jean Adams (Flamingo Math™)

Radical Functions & Rational Exponents Stations

Name _____

R	1.	2.
	3.	4.
A$_1$	5.	6.
	7.	8.
D	9.	10.
	11.	12.
I	13.	14.
	15.	16.

© 2013 – present Flamingo Math™ Jean Adams

G	17.		18.
A$_2$	19.	20.	21.
L	22.		23.
	24.		25.
S	26.		27.
	28.		29.

© 2013 – present Flamingo Math™ Jean Adams

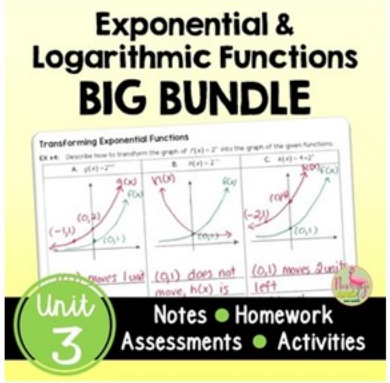


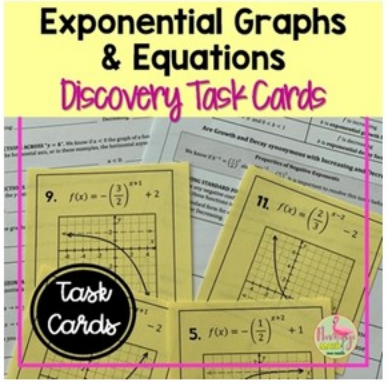
My goal is to help you bring balance into your teacher life by providing relevant content, engaging activities, and comprehensive assessments for your high-stakes math course.

Jean

More Resources for YOU









Let's keep in touch! I'm here for you!

TPT

I appreciate your support and interest in my store.

Please email me with questions or comments:

jean@flamingomath.com

Sign up for my Newsletter to gain access to an Exclusive FREE Resource Library!

NEWS LETTER