

Name _____ Date _____ Pd _____

5.4 Solving Radical Equations & Rational Exponent Equations DAY TWO CYU

Use when you get it right all by yourself

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Solve radical equations	1 - 3, 5, 8	4, 6, 7	9 - 16
Check for extraneous solutions	1 - 3, 5, 8	4, 6, 7	9 - 16
Domain restrictions	4, 6, 8, 15	1 - 3, 5	7, 9 - 14, 16

Solve each equation. Check for extraneous solutions. State the domain and show work for any restrictions that apply. Show all work for full credit. Box your final answers. Round to the thousandths, when appropriate.

1. $3 = \sqrt{b - 1}$

2. $2 = \sqrt[2]{\frac{x}{2}}$

3. $\sqrt{x + 4} = 0$

4. $\sqrt[3]{-8 - 2a} = 0$

5. $\sqrt[2]{2m - 6} = \sqrt[2]{3m - 14}$

6. $5 = \sqrt[3]{r - 3}$

7. $\sqrt{2v - 7} = v - 3$

8. $\sqrt[3]{9 - w} = \sqrt[3]{1 - 9w}$

$$9. (3)^{\frac{1}{2}} - (-2 - 2x)^{\frac{1}{2}} = 1$$

$$10. x = 5 + (3x - 11)^{\frac{1}{2}}$$

$$11. m^{\frac{3}{4}} = 27$$

$$12. x^{-\frac{3}{2}} = \frac{1}{729}$$

$$13. 26 = -1(27x)^{\frac{3}{4}}$$

$$14. 5 = 3 + 4a^{-\frac{1}{6}}$$

$$15. 9 + 5\sqrt[3]{2m} = 29$$

$$16. -3 + (8 - 2x)^{\frac{5}{4}} = 29$$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered?

