



Name _____ Date _____ Period _____

SOLVING RADICAL/RATIONAL EXPONENT EQUATIONS WORKSHEET

Solve each equation. Make sure to check your solution(s)!!

1. $\sqrt{x+3} = 5$

2. $\sqrt{5x+1} = 8$

3. $\sqrt{x-2} - 7 = -4$

4. $\sqrt{x+4} + 6 = 7$

5. $\sqrt[3]{x-2} = 3$

6. $(x+3)^{\frac{1}{4}} = 2$

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

8. $(y-3)^{\frac{1}{2}} = -2$

9. $8\sqrt{y} = y$

10. $\sqrt{2x-7} = \sqrt{3x-12}$

11. $(3x+5)^{\frac{7}{3}} + 22 = 150$

12. $3 + \sqrt{5-x} = x$

$$13. \sqrt[3]{8x^3 - 1} = 2x - 1$$

$$14. (x+2)^{\frac{3}{4}} - 1 = 7$$

$$15. \sqrt{20-x} + 8 = \sqrt{9-x} + 11$$

$$16. \sqrt{x+2} + \sqrt{3x+4} = 2$$

$$17. \sqrt{6x+7} - \sqrt{3x+3} = 1$$

$$18. \sqrt{5x+6} + 3 = \sqrt{3x+3} + 4$$