

HONORS – SOLVING RADICAL EQUATIONS PRACTICE II

Name:

Key

Solve each radical equation. CHECK FOR EXTRANEEOUS SOLUTIONS.

1. $3\sqrt{x} + 3 = 15$

$$x = 16$$

2. $4\sqrt{x} - 1 = 3$

$$x = 1$$

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

$$x = 22$$

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

$$x = 4$$

5. $\sqrt{2x + 3} - 7 = 0$

$$x = 23$$

6. $\sqrt{6 - 3x} - 2 = 0$

$$x = \frac{2}{3}$$

9. $3(x - 2)^{\frac{3}{4}} = 24$

$$x = 18$$

10. $3(x + 3)^{\frac{3}{4}} = 81$

$$x = 78$$

11. $(x + 1)^{\frac{3}{2}} - 2 = 25$

$$x = 1$$

12. $3 + (4 - x)^{\frac{3}{2}} = 11$

$$x = 0$$

$$15. \sqrt{11x+3} - 2x = 0$$

$$x = 3$$

$$16. (5x+4)^{\frac{1}{2}} - 3x = 0$$

$$x = 1$$

$$17. \sqrt{3x+13} - 5 = x$$

$$x = -4$$

$$x = -3$$

$$18. \sqrt{x+7} + 5 = x$$

$$x = 9$$

$$19. (x+3)^{\frac{1}{2}} - 1 = x$$

$$x = 1$$

$$20. (5-x)^{\frac{1}{2}} = x+1$$

$$x = 1$$