

3.3

Name _____ Date _____ Period _____

Solving Radical Equations

Solve each radical equation. **SHOW WORK!** (no work = no credit)

1. $\sqrt{4x+1}-5=0$

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

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

4. $\sqrt{4x-23}-3=2$

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

6. $\sqrt[3]{x-1}+4=5$

7. $\sqrt[3]{x}+3=2$

8. $\sqrt[4]{2x-5}-3=0$

9. $6\sqrt[4]{2x-7}+8=32$

10. $2\sqrt[5]{31x+25}-7=3$

$$11. 2\sqrt{x+4} - 5 = -3$$

$$12. -\sqrt{x-4} + 3 = -1$$

$$13. \sqrt{x^2+3} = x+1$$

$$14. \sqrt{x+7} = x-5$$

$$15. \sqrt{3x+7} + 1 = x$$

$$16. \sqrt{x-6} = x-6$$

Review

Factor.

$$17. 27x^3 - 64$$

$$18. 12x^2 - 14x - 40$$

Find the zeros.

$$19. x^2 + 13x - 48 = 0$$

$$20. 6x^2 - 3x = 15$$