

**Chapter 8 PRACTICE Test**

Solve any way you want (factoring, quadratic formula, complete the square, square root both sides)

1.  $x^2 - 8x + 12 = 0$

2.  $2x^2 + x - 6 = 0$

3.  $3x^2 - 24x = 0$

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4.  $3x^2 - 48 = 0$

5.  $81x^2 - 25 = 0$

6.  $x^2 + 7x = 6$

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

How many and what type of solutions do the following quadratics have

7.  $3x^2 - 5x - 1 = 0$

8.  $4x^2 + 12x + 9 = 0$

9.  $x^2 + 2x + 2 = 0$

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

Write a quadratic equation in **standard form** of the following

10. Has roots of 4, -5

11. Has roots of  $\frac{3}{2}$ ,  $\frac{5}{6}$

10. \_\_\_\_\_

11. \_\_\_\_\_

Solve the following using "u-substitution"

12.  $x^4 - 3x^2 = 4$

13.  $x^{\frac{2}{3}} - x^{\frac{1}{3}} - 6 = 0$

12. \_\_\_\_\_

13. \_\_\_\_\_

**\*\*BONUS\*\***

Solve for x

\*14.  $\frac{3}{x} + \frac{5}{x+2} = 2$

\*15.  $\sqrt{24 - 5x} = x$

\*14. \_\_\_\_\_

\*15. \_\_\_\_\_