Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

# Unit 10 Test Review

# Polynomials

1. What are the 3 ways to solve a quadratic equation?

a.

 b.

 c.

2. What is standard form of a quadratic?

3. When we factor we \_\_\_\_\_\_\_\_\_\_ backwards.

4. How many square roots do *positive real numbers* have?

5. How many square roots do *negative real numbers* have?

6. How many square roots does *zero* have?

**Solve the factored equation.**

7. $\left(x-2\right)\left(x+5\right)=0$ 8. $\left(t-9\right)\left(t-4\right)=0$

9. $m\left(m+7\right)=0$ 10. $\left(z-3\right)^{2}=0$

**Solve the equation by factoring.**

11. $q^{2}+2q=0$ 12. $k^{2}-9k-18=0$

13. $2b^{2}+6b-20=0$ 14. $2x^{2}+5x-12=0$

**Solve the equation using square roots.**

15. $w^{2}-36=0$ 16. $x^{2}+16=0$

17. $2t^{2}-18=0$ 18. $p^{2}=81$

19. What is the *quadratic formula*?

**Solve using the Quadratic Formula.**

20. $x^{2}-5x+6=0$ 21. $6x^{2}+7x-3=0$

22. $x^{2}-5x+2=0$ 23. $3x^{2}+4x+2=0$

**Add or subtract the following polynomials.**

24.  25. 

**Multiply the following polynomials**

26.  27. 

28. Simplify using positive exponents:

A. $x^{-2}$ B. $(-3)^{-3}$ C. $((4x)^{2})^{-2}$

**State the inverse operation:**

29. Addition \_\_\_\_\_\_\_\_\_\_\_\_

30. Multiplication \_\_\_\_\_\_\_\_\_\_\_\_\_

31. FOIL stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_

32. The slope of a horizontal line is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

33. The slope of a vertical line is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_