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

# Unit 6 Test Review

# Exponents

1. An expression written as ab is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. b is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and it represents the number of times a, the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is used as a factor.

3. Powers represent repeated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Write as an exponent.**

4. $x∙x∙x$ 5. 7 to the 5th power 6. $p∙p$

7. 2 to the 4th power 8. t to the 8th power 9. $4∙4∙4$

**Evaluate the Power.**

10. $2^{4}$ 11. $7^{2}∙7^{3}$ 12. $(x^{4})^{3}$ 13. $(-5x)^{2}$

**Simplify. Use Positive Exponents.**

14. $x^{-2}$ 15. $(-3)^{-3}$ 16. $((4x)^{2})^{-2}$ 17. $(3∙2)^{-3}$

**Simplify.**

18. $\frac{x^{-3}}{x^{-2}}$ 19. $\frac{3x^{2}y}{y^{2}}$ 20. $\frac{x^{-3}}{x}$ 21. $(ab)^{-2}$

**Simplify then Evaluate when a=2 and b=1.**

22. $\frac{(b^{0})^{-3}}{a}$ 23. $\frac{(ab)^{-4}}{b^{2}}$

24. $\frac{(ab)^{3}}{b}$ 25. $((2b)^{2})^{-3}$

26. $\frac{a^{-1}}{b^{3}}∙b^{3}$ 27. $\frac{b^{3}}{ab^{-4}}$

**Write an equation of the line shown in the graph.**

28. 29.



y = y =

**Write an equation of the line with the given slope that goes through the given point. Write the equation in Point-Slope Form.**

30. (6, -1), m =  31. (5, 8), m = 0

**Write the equation in Standard Form.**

32. $y=4x-3$ 33. $3y-4x+5=0$

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

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