Name _____ Date _____

Practice 3

For use with Section 1-3

Write the product as a power. Then write how to say it.

1. $10 \cdot 10$

2. $5 \cdot 5 \cdot 5$

3. $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$

4. $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$

5. $7 \cdot 7 \cdot 7 \cdot 7$

6. $8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$

7. $n \cdot n$

8. $x \cdot x \cdot x \cdot x \cdot x$

9. $y \cdot y \cdot y$

10. $w \cdot w \cdot w \cdot w$

11. $k \cdot k$

12. $m \cdot m \cdot m \cdot m \cdot m \cdot m$

Write using exponents.

13. 5 to the fourth

14. 3 squared

15. 4 cubed

16. the fifth power of 7

17. the sixth power of 2

18. 5 squared

19. n to the sixth

20. b cubed

21. p to the seventh

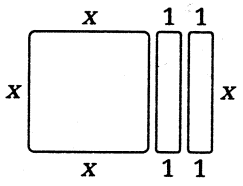
22. q squared

23. y to the fourth

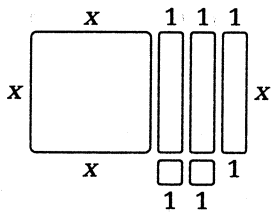
24. the fifth power of z

Write an expression for the area covered by each group of tiles. Evaluate each expression when $x = 3$.

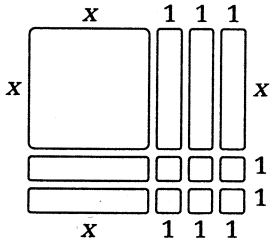
25.



26.



27.



Write as a power of ten.

28. $10^2 \cdot 10^3$

29. $10^5 \cdot 10^4$

30. $10^8 \cdot 10$

31. $10^6 \cdot 10^6$

32. $10^{15} \cdot 10^{15}$

33. $10 \cdot 10^{12}$

34. $\frac{10^3}{10^2}$

35. $\frac{10^6}{10}$

36. $\frac{10^{13}}{10^8}$

37. ***Open-ended*** Write as a power of 10: $(10^3)^2$, $(10^3)^3$, and $(10^3)^4$. Make a conjecture about what power of 10 you get for $(10^a)^b$.