Name _____

Practice
2-4

Exponents

Write using exponents.

1. $3 \times 3 \times 3 \times 3$ _____
2. 364×364 _____
3. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$ _____
4. $13 \times 13 \times 13$ _____
5. $8 \times 8 \times 8 \times 7 \times 7$ _____
6. 49 _____

Write in expanded form.

7. 10^4 _____
8. 6^5 _____
9. 3^2 _____
10. 7^3 _____
11. 12^4 _____
12. 5 cubed _____

Write in standard form.

13. 5^4 _____
14. 2^6 _____
15. 11 squared _____
16. 10^7 _____
17. 12^2 _____
18. 6 cubed _____

Compare using $<$, $>$, or $=$.

19. $4^2 \bigcirc 2^4$
20. $4^3 \bigcirc 3^4$
21. $5^8 \bigcirc 5^9$
22. $3^8 \bigcirc 3 \times 8$
23. $2^5 \bigcirc 5^2$
24. $10^3 \bigcirc 10 + 10 + 10$
25. $5^3 \bigcirc 5 \times 5 \times 5$
26. $7^3 \bigcirc 3^7$
27. $10^4 \bigcirc 4 \times 10$

For each number in exponential notation, identify the base, exponent, and power. Use a calculator to write each number in standard form.

28. A typical American kid watches about 18^4 television advertisements between birth and high school graduation.

    base _____ exponent _____

    power _____ standard form _____

29. The highest point in Kentucky is Black Mountain. Its height is about 2^{12} feet.

    base _____ exponent _____

    power _____ standard form _____

Name _____

Practice
2-4

Exponents

Write using exponents.

1. $3 \times 3 \times 3 \times 3$ ___3^4___
2. 364×364 ___364^2___
3. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$ ___2^7___
4. $13 \times 13 \times 13$ ___13^3___
5. $8 \times 8 \times 8 \times 7 \times 7$ ___$8^3 \bullet 7^2$___
6. 49 ___49^1 (I'll also take 7^2)___

Write in expanded form.

7. 10^4 ___$10 \bullet 10 \bullet 10 \bullet 10$___
8. 6^5 ___$6 \bullet 6 \bullet 6 \bullet 6 \bullet 6$___
9. 3^2 ___$3 \bullet 3$___
10. 7^3 ___$7 \bullet 7 \bullet 7$___
11. 12^4 ___$12 \bullet 12 \bullet 12 \bullet 12$___
12. 5 cubed ___$5 \bullet 5 \bullet 5$___

Write in standard form.

13. 5^4 ___625___
14. 2^6 ___64___
15. 11 squared ___121___
16. 10^7 ___10,000,000___
17. 12^2 ___144___
18. 6 cubed ___216___

Compare using <, >, or =.

19. 4^2 (=) 2^4
20. 4^3 (<) 3^4
21. 5^8 (<) 5^9
22. 3^8 ( ) 3×8
23. 2^5 (>) 5^2
24. 10^3 (>) $10 + 10 + 10$
25. 5^3 (=) $5 \times 5 \times 5$
26. 7^3 (<) 3^7
27. 10^4 (>) 4×10

For each number in exponential notation, identify the base, exponent, and power. Use a calculator to write each number in standard form.

28. A typical American kid watches about 18^4 television advertisements between birth and high school graduation.

base ___18___ exponent ___4___

power ___18^4___ standard form ___104,976___

29. The highest point in Kentucky is Black Mountain. Its height is about 2^{12} feet.

base ___2___ exponent ___12___

power ___2^{12}___ standard form ___4,096___