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 _____