NAME _____ CLASS _____ DATE _____

Practice

8.1 Laws of Exponents: Multiplying Monomials

Find the value of each expression.

1. 5^5 _____
2. 2^9 _____
3. 6^3 _____
4. 9^3 _____
5. 100^2 _____
6. 6^5 _____
7. 10^7 _____
8. 3^3 _____
9. 4^8 _____
10. 12^4 _____
11. 16^2 _____
12. 20^4 _____

Simplify each product.

13. $10^2 \cdot 10^5$ _____
14. $a^7 \cdot a^{12}$ _____
15. $c^3 \cdot c^8$ _____
16. $d^7 \cdot d^9$ _____
17. $x^2 \cdot x^8$ _____
18. $w^3 \cdot w^5$ _____
19. $a^2 \cdot a^6$ _____
20. $10^a \cdot 10^b$ _____

Simplify each product.

21. $(2x^2)(4x^3y^2)$ _____
22. $(-3a^2b)(6ab^4c)$ _____
23. $(7q^5)(12q^3r^5)$ _____
24. $(11c^8)(-10c^4d)$ _____
25. $(9x^{10}z^2)(5x^5y^3)$ _____
26. $(-8f^6g)(-7f^2g^5h)$ _____
27. $(1.3a^6b^{11}c^5)(0.5a^2bc^3)$ _____
28. $(4.7r^6s^2)(2.1r^{11}s)$ _____
29. $(-2x^2z)(-2y^2z)(-2xyz)$ _____
30. $(a^xb^yc^z)(a^rb^sc^t)$ _____

The area, *A*, of a triangle is given by $A = \frac{1}{2}bh$, where *b* is the base and *h* is the height. Find the area of the triangle given the values of *b* and *h*.

31. $h = 5x, b = 2x$ _____
32. $h = x^3, b = x^4$ _____
33. $h = 3x^4, b = 4x^7$ _____
34. $h = 12a^3, b = 10a^2$ _____