Lesson 1 Homework Practice

Powers and Exponents

Write each product using an exponent.

1. 20×20 **2.** $4 \times 4 \times 4 \times 4$ **3.** $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

Write each power as a product of the same factor. Then find the value.

4. 15^3 **5.** 6^5

6. 0^4 **7.** 1^8

Lesson 2 Homework Practice

Numerical Expressions

Find the value of each expression.

8. $34 + 17 - 5$ **9.** $25 - 14 + 3$ **10.** $39 \times (15 \div 3) - 16$

11. $(3 + 7) \times 6 + 4$ **12.** $4 \times (5^2 - 12) - 6$ **13.** $9 + 7 \times (15 + 3) \div 3^2$

Lesson 3 Homework Practice

Algebra: Variables and Expressions

Evaluate each expression if $a = 9$, $b = 3$, and $c = \dfrac{1}{3}$. Write answers as fractions in simplest form.

14. $a^2 \div 3$

15. $15b + a^2$

16. $b^2 + 4 \cdot 6$

17. $b^3 + c$

18. $19 + 6a \div 2$

19. $4b^2 \cdot 3$

20. $3c \div (2b^2)$

21. $a^2 - (3c)$

22. $ac \div (2b)$

Lesson 4 Homework Practice

Algebra: Write Expressions

Define a variable. Then write each phrase as an algebraic expression.

23. nine less than a number

24. five times the number of books in the library

25. three more pancakes than his brother ate

26. two more than seven times Lynn's age

27. 9 minutes less than Frances' time

28. Stacy's pencils split evenly into four piles