Name _____ Date _____ Period _____

Lesson 6-4

Reinforce Understanding

Write and Evaluate Numerical Expressions with Exponents

I can write numerical expressions from a real situation and evaluate them using the order of operations, including powers.

Worked model

A group buys 4 tickets at $9 each and 3 programs at $6 each. Write an expression for the total cost, then find it.

1. Name the parts. tickets: 4 at $9 programs: 3 at $6
2. Write a product for each part. 4 × 9 and 3 × 6
3. Join them with the operation the story needs. 4 × 9 + 3 × 6
4. Evaluate. 36 + 18 = 54

Answer: The expression is 4 × 9 + 3 × 6, and the total cost is $54.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. What does 2^3 mean?

Circle the letter of the best answer. Show how you know.

A. 2 × 2 × 2
B. 2 × 3
C. 2 + 2 + 2
D. 3 × 3

Show your work

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2. Sofia buys 4 tickets at $20 each and 2 tickets at $15 each. Which expression shows the total?

Circle the letter of the best answer. Show how you know.

A. 4 × 20 + 2 × 15
B. 4 + 20 + 2 + 15
C. (4 + 2) × (20 + 15)
D. 4 × 2 + 20 × 15

Show your work
