

Lesson 6-3

Reinforce Understanding

Explore Numerical Expressions with Exponents

I can write and evaluate numbers in exponent form using a base and a power.

Worked model

Write $9 \times 9 \times 9 \times 9$ as a power. Then name its base and its exponent.

1. Find the repeated factor. The factor is 9.
2. Count how many times it is used. It is used 4 times.
3. Write the base, then the exponent. 9^4
4. Read it out loud. 9 to the 4th power

Answer: $9 \times 9 \times 9 \times 9 = 9^4$. The base is 9 and the exponent is 4.

Practice

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

1. Which expression shows 5^3 as repeated multiplication?

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

- A. $3 \times 3 \times 3 \times 3 \times 3$
- B. $5 \times 5 \times 5$
- C. 5×3
- D. $5 + 5 + 5$

Show your work

2. Write each power as repeated multiplication, then find the value.

Complete the table. Show how you found each value.

Power	Repeated Multiplication	Value
3^2	3×3	
2^4	$2 \times 2 \times 2 \times 2$	

Show your work

3. What is the value of 4^3 ?

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

- A. 7
- B. 12
- C. 43
- D. 64

Show your work
