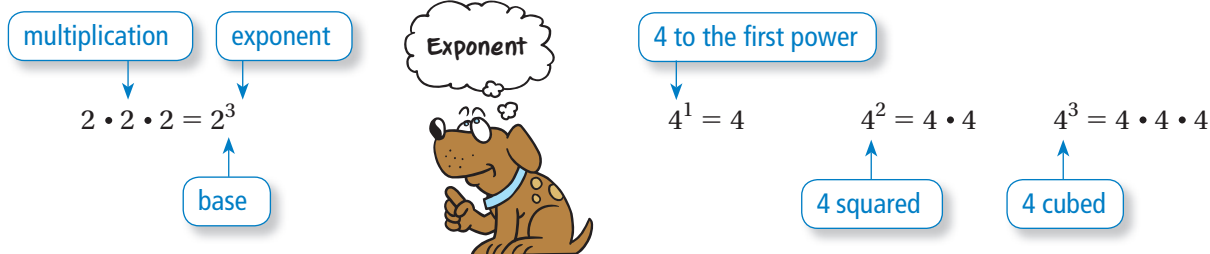


## Key Concept and Vocabulary



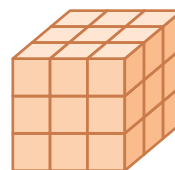
## Skill Examples

- $3^2 = 3 \cdot 3 = 9$
- $2^4 = 2 \cdot 2 \cdot 2 \cdot 2 = 16$
- $4^3 = 4 \cdot 4 \cdot 4 = 64$
- $5^4 = 5 \cdot 5 \cdot 5 \cdot 5 = 625$
- $9^5 = 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 = 59,049$

## Application Example

6. How many small cubes are in the stack?

$$3^3 = 3 \cdot 3 \cdot 3 = 27$$



27 small cubes are in the stack.

## PRACTICE MAKES PURR-FECT®



Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

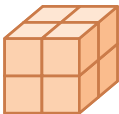
Find the value.

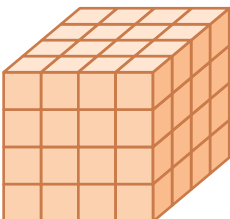
- $3^4 = \underline{\hspace{2cm}}$
- $4^5 = \underline{\hspace{2cm}}$
- $12^3 = \underline{\hspace{2cm}}$
- $18^1 = \underline{\hspace{2cm}}$
- $5^6 = \underline{\hspace{2cm}}$
- $2^{10} = \underline{\hspace{2cm}}$
- $8^2 = \underline{\hspace{2cm}}$
- $7^3 = \underline{\hspace{2cm}}$

Use an exponent to rewrite the expression.

- $4 \cdot 4 \cdot 4 \cdot 4 = \underline{\hspace{2cm}}$
- $1 \cdot 1 \cdot 1 = \underline{\hspace{2cm}}$
- $5 \cdot 5 \cdot 5 = \underline{\hspace{2cm}}$
- $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 = \underline{\hspace{2cm}}$

How many small cubes are in the stack?

19.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

20.  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

21. **FLYING SAUCERS** You saw 5 flying saucers. Each flying saucer had 5 aliens. Each alien had 5 eyes. How many alien eyes were there altogether? Explain your reasoning.

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