REVIEW: Cubes

Name _____

Key Concept and Vocabulary

multiplication   exponent   *Cubes*

$$2 \cdot 2 \cdot 2 = 2^3$$

base

Visual Model

$$2^3 =$$
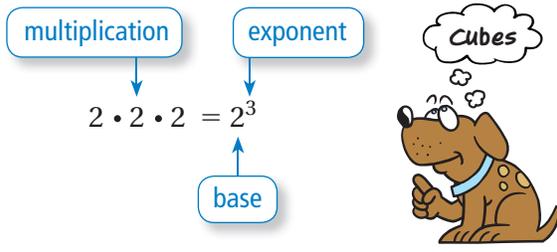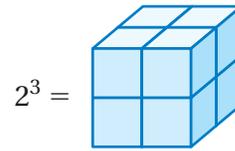
Skill Examples

1. $2^3 = 2 \cdot 2 \cdot 2 = 8$

2. $5^3 = 5 \cdot 5 \cdot 5 = 125$

3. $7^3 = 7 \cdot 7 \cdot 7 = 343$

4. $9^3 = 9 \cdot 9 \cdot 9 = 729$

5. $20^3 = 20 \cdot 20 \cdot 20 = 8000$

Application Example

6. How many small cubes are in the stack?

$$4^3 = 4 \cdot 4 \cdot 4$$
$$= 64$$

⋰ 64 small cubes are in the stack.
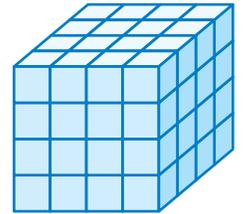
PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Find the value.

7. $6^3 =$ _____

8. $3^3 =$ _____

9. $8^3 =$ _____

10. $10^3 =$ _____

11. $12^3 =$ _____

12. $15^3 =$ _____

Use an exponent to rewrite the expression.

13. $16 \cdot 16 \cdot 16 =$ _____

14. $11 \cdot 11 \cdot 11 =$ _____

15. $25 \cdot 25 \cdot 25 =$ _____

Evaluate the expression when $x = 3$.

16. $x^3 + 1$ _____

17. $2x^3$ _____

18. $6x - x^3$ _____

How many small cubes are in the stack?

19.

_____
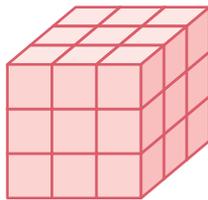
20.

_____
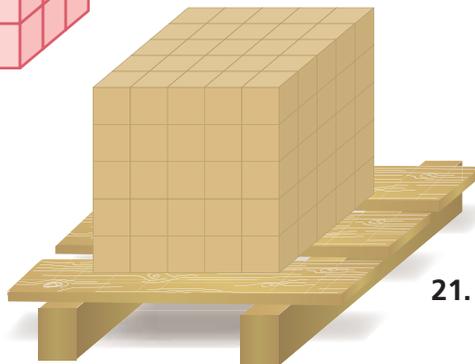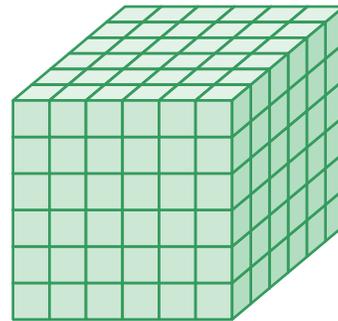
21. SHIPPING How many boxes are on the pallet?

_____

Topic 3.5