

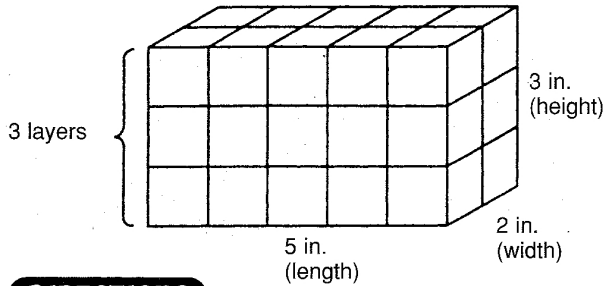
# Science Skills 8

## Exploring Volume

**Volume** is the space that fills a three-dimensional figure.

**DIRECTIONS**

Find the volume of the rectangular prism.



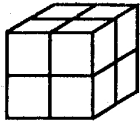
**Formula:**  $V = l \times w \times h$   
**Substitute:**  $= 5 \times 2 \times 3$   
**Solve:**  $= 30$

The volume is **30 in.<sup>3</sup>**.  
 $5 \times 2 = 10$  cubic inches in each layer.

**DIRECTIONS**

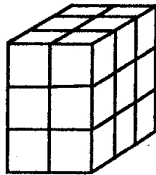
Tell what numbers to multiply to find the volume of the rectangular prism. Solve. Write your answers in the column to the right.

1.



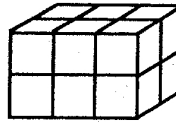
$V = \underline{\hspace{2cm}}$

2.



$V = \underline{\hspace{2cm}}$

3.

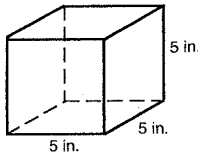


$V = \underline{\hspace{2cm}}$

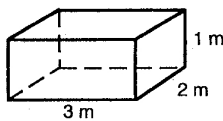
**DIRECTIONS**

Find the volume. Write your answers in the column to the right.

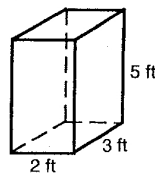
4.



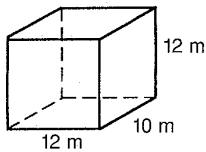
5.



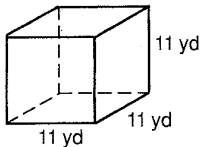
6.



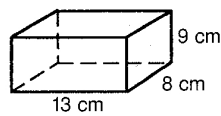
7.



8.



9.



- 1. \_\_\_\_\_
- $v = \underline{\hspace{2cm}}$
- 2. \_\_\_\_\_
- $v = \underline{\hspace{2cm}}$
- 3. \_\_\_\_\_
- $v = \underline{\hspace{2cm}}$
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_

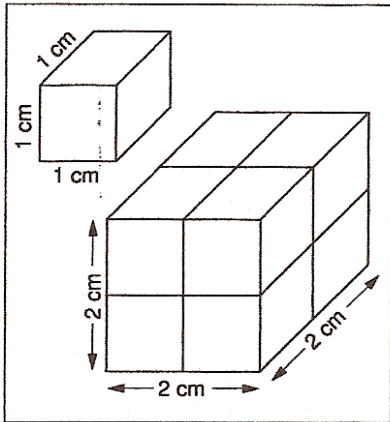


Figure J

What is the volume of a cube that is  $2\text{ cm} \times 2\text{ cm} \times 2\text{ cm}$ ?

$$\text{Volume} = l \times w \times h$$

$$= 2\text{ cm} \times 2\text{ cm} \times 2\text{ cm}$$

$$\text{Volume} = 8\text{ cubic centimeters (8cm}^3\text{)}.$$

Find the volume of each of the following boxes:

Volume

1.  $2\text{ cm} \times 5\text{ cm} \times 1\text{ cm}$  \_\_\_\_\_

2.  $8\text{ m} \times 2\text{ m} \times 2\text{ m}$  \_\_\_\_\_

3.  $1\text{ mm} \times 1\text{ mm} \times 10\text{ mm}$  \_\_\_\_\_

4.  $4\text{ cm} \times 2\text{ cm} \times 3\text{ cm}$  \_\_\_\_\_

5.  $5\text{ m} \times 3\text{ m} \times 6\text{ m}$  \_\_\_\_\_