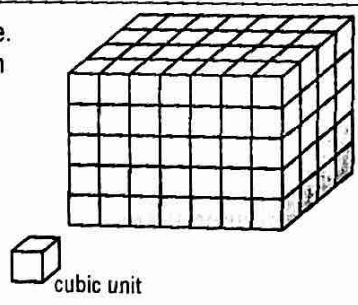


CHAPTER 9 Lesson 1

Volume of Rectangular Prisms

Notes:

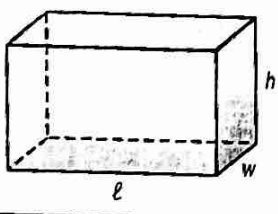
The amount of space inside a three-dimensional figure is the **volume** of the figure. Volume is measured in **cubic units**. This tells you the number of cubes of a given size it will take to fill the prism.



The volume V of a rectangular prism is the product of its length ℓ , width w , and height h .

Symbols $V = \ell wh$

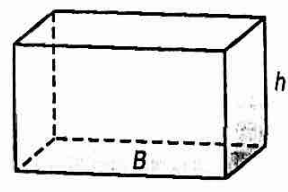
Model



You can also multiply the area of the base B by the height h to find the volume V .

Symbols $V = Bh$

Model



Example

Find the volume of the rectangular prism.

Method 1 Use $V = \ell wh$.

$$V = \ell wh$$

$$V = 10 \times 5 \times 2$$

$$V = 100$$

The volume is 100 ft^3 .

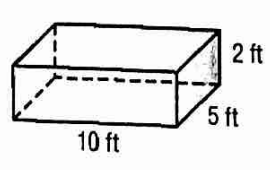
Method 2 Use $V = Bh$.

$$V = Bh$$

$$V = 50 \times 2$$

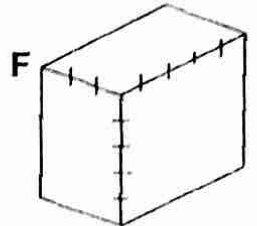
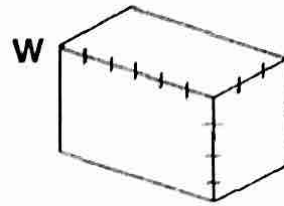
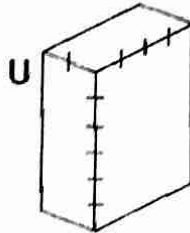
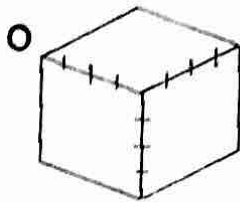
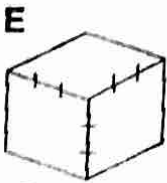
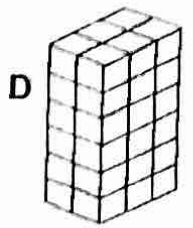
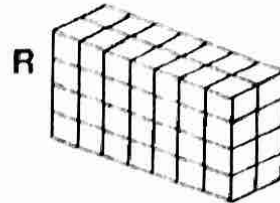
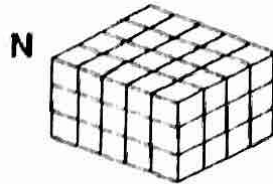
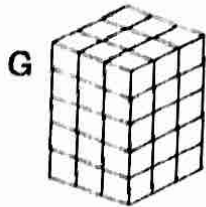
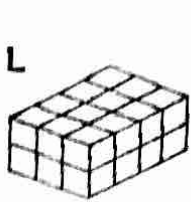
$$V = 100$$

The volume is 100 ft^3 .



What Problem Does A Five-Foot Man Have?

TO ANSWER THIS QUESTION: Figure out the volume of any rectangular solid below and find your answer in the code. Each time it appears in the code, write the letter of that exercise above it. Keep working and you will discover the answer to the question.



I LENGTH: 9
WIDTH: 7
HEIGHT: 10

B LENGTH: 15
WIDTH: 4
HEIGHT: 8

Y LENGTH: 12
WIDTH: 12
HEIGHT: 5

H LENGTH: 16
WIDTH: 11
HEIGHT: 15

T LENGTH: 18
WIDTH: 6
HEIGHT: 25

A LENGTH: 14
WIDTH: 8
HEIGHT: 3

P LENGTH: 30
WIDTH: 20
HEIGHT: $\frac{1}{2}$

S LENGTH: 17
WIDTH: $\frac{1}{2}$
HEIGHT: 40

CODED ANSWER	480	48	720	630	60	45	2700	72	64	336	60	36	336	2640	336	24	75
	300	336	630	56	340	64	75	340	2640	64	27	340					