

1.33

Volume of a Rectangular Solid

• Example 1

A crate has dimensions 3 ft by 4 ft by 2 ft. Find its volume.

Solution

We are not particularly worried about which is the length, which is the width, and which is the height, since the order in which we multiply won't change the result.

Use the formula $V = L \cdot W \cdot H$, with L , W , and H expressed in ft and V expressed in ft^3 .

$$\begin{aligned} V &= L \cdot W \cdot H \\ &= 4 \times 3 \times 2 \\ &= 24 \end{aligned}$$

The volume is 24 ft^3 .

● ● ● CHECK YOURSELF 1

A room is 15 ft long, 10 ft wide, and 8 ft high. What is its volume?

● ● ● CHECK YOURSELF ANSWER

1. 1200 ft^3 .

1.33 Exercises

Name _____

Section _____

Date _____

ANSWERS

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Find the volume of each rectangular solid shown.

