

Volume of Rectangular Prisms

Guided Practice

1. A rectangular kitchen sink is 25.25 inches long, 19.75 inches wide, and 10 inches deep. Find the amount of water that can be contained in the

Show your work.

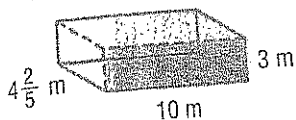
sink. (Examples 1 and 2)

2. Find the missing dimension of a rectangular prism with a volume of 126 cubic centimeters, a width of $7\frac{7}{8}$ centimeters, and a height of 2 centimeters. (Example 3)

Independent Practice

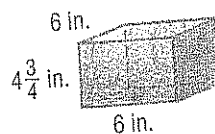
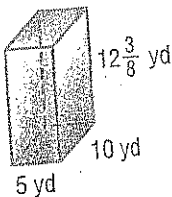
Find the volume of each prism. (Example 1)

1.



Show your work.

2.

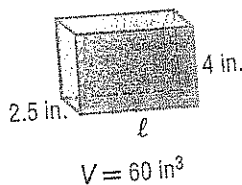


4. A fishing tackle box is 13 inches long, 6 inches wide, and $2\frac{1}{2}$ inches high. What is the volume of the tackle box? (Example 2)

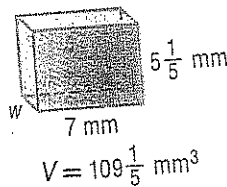
5. Find the length of a rectangular prism having a volume of 2,830.5 cubic meters, width of 18.5 meters, and height of 9 meters. (Example 3)

Find the missing dimension of each prism. (Example 3)

6.



7.

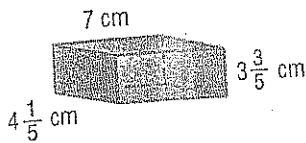


Hint $\frac{2}{3}$ foot = 8 inches.

8. **Be Precise** In Japan, farmers have created watermelons in the shape of rectangular prisms. Find the volume of a prism-shaped watermelon in cubic inches if its length is 10 inches, its width is $\frac{2}{3}$ foot, and its height is 9 inches.

Find the volume of each prism.

14. 105.84 cm^3



$$V = lwh$$

$$V = 7 \times 4\frac{1}{5} \times 3\frac{3}{5}$$

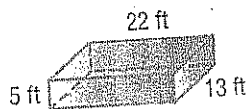
$$V = \frac{7}{1} \times \frac{21}{5} \times \frac{18}{5}$$

$$V = \frac{2,646}{25}$$

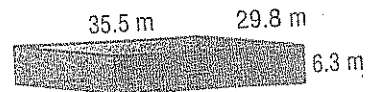
$$V = 105.84$$

homework help

15.



16.



17. Find the volume of the pet carrier shown at the right.

18. What is the width of a rectangular prism with a length of 13 feet, volume of 11,232 cubic feet, and height of 36 feet?

19. The Palo Duro Canyon is 120 miles long, as much as 20 miles wide, and has a maximum depth of more than 0.15 mile. What is the approximate volume of this canyon?

