

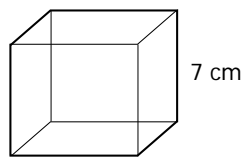
Finding Volume

Volume (V) is the amount of space something occupies. It is expressed in cubic units, such as cubic meters (m^3) and cubic centimeters (cm^3). Use the equations for volume below to calculate the volume of cubes and prisms.

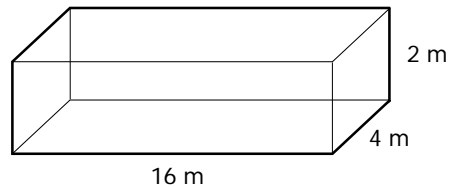
EQUATIONS: Volume of a cube = side \times side \times side

Volume of a prism = area of base \times height

SAMPLE PROBLEMS: Find the volume (V) of the solids.



$$\begin{aligned} V &= \text{side} \times \text{side} \times \text{side} \\ V &= 7 \text{ cm} \times 7 \text{ cm} \times 7 \text{ cm} \\ V &= 343 \text{ cm}^3 \end{aligned}$$

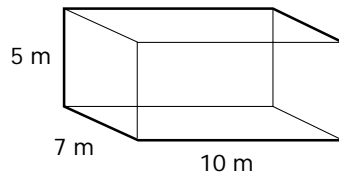


$$\begin{aligned} V &= \text{area of base} \times \text{height} \\ V &= (\text{length} \times \text{width}) \times \text{height} \\ V &= (16 \text{ m} \times 4 \text{ m}) \times 2 \text{ m} \\ V &= 64 \text{ m}^2 \times 2 \text{ m} \\ V &= 128 \text{ m}^3 \end{aligned}$$

Turn Up the Volume!

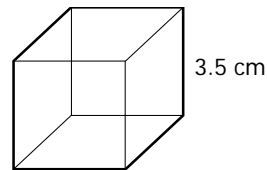
1. Find the volume of the solids.

a.



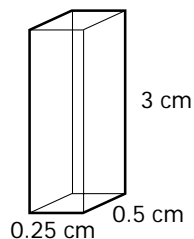
$V =$ _____

b.



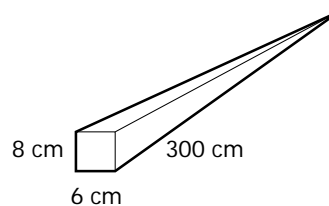
$V =$ _____

c.



$V =$ _____

d.



$V =$ _____

Challenge Yourself!

2. A rectangular-shaped swimming pool is 50 m long and 2.5 m deep and holds 2500 m^3 of water. What is the width of the pool?
