

Algebra 1 9/27

Warm Up
AIMS Web 1

0-9 Volume

I can find the volume of rectangular prisms and cylinders
Volume

is the measure of the space occupied by a solid.

Volume is always measured in cubic units.

in^3 ft^3 cm^3 exponent is only on the unit!

Volume Formula for a Rectangular Prism

$$V = l \cdot w \cdot h$$

Volume equals length times width times height

Volume Formula for a Cylinder

$$V = \pi r^2 h$$

(Handwritten blue circle around πr^2 with "A" written below it)

Volume equals pi times radius squared times the height

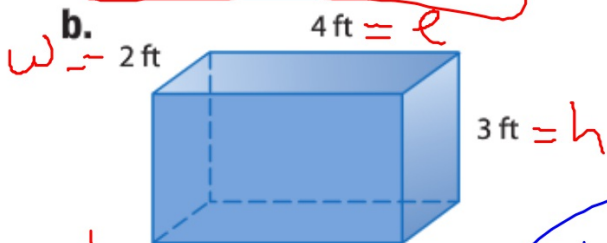
I can find the volume of rectangular prisms and cylinders

Ex. 1 Find the volume of each rectangular prism

- a. The length is 8 centimeters, the width is 1 centimeter, and the height is 5 centimeters.

$$V = l \cdot w \cdot h$$
$$V = 8 \cdot 1 \cdot 5$$
$$V = 40 \text{ cm}^3$$

~~$$40^3 \text{ cm}$$~~

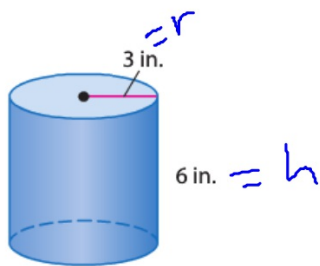


$$V = lwh$$
$$V = 4 \cdot 2 \cdot 3$$

$$V = 24 \text{ ft}^3$$

I can find the volume of rectangular prisms and cylinders

Ex. 2 Find the volume of the cylinder



$$V = 169.6 \text{ in}^3$$

$$V = \pi \cdot r^2 \cdot h$$

$$V = \pi \cdot 3^2 \cdot 6$$

$$\pi \cdot 9 \cdot 6$$

$$V = 169.6460033$$

I can find the volume of rectangular prisms and cylinders

ICA

(In-class assignment)

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Hmwk

IXL 7th AA.7