Name _____   Date _____

Cubic Volume: Multiplication Relationships - Guided Lesson Explanation

Explanation#1

Volume of a rectangular prism:

Volume = length × width × height

Find the length, width, and height of the rectangular prism.

length: 9 ft
width: 4 ft
height: 6 ft

Use these numbers in the formula.

Volume = length x width x height

$$= 9 \text{ x } 4 \text{ x } 6$$

$$= 216$$

Now find the units. The lengths are measured in feet, so the volume is measured in cubic feet. The volume is 216 cubic feet.

Explanation#2

Volume of a rectangular prism:

Volume = length × width × height

Find the length, width, and height of the rectangular prism.

length: 10 ft
width: 10 ft
height: 4 ft
Use these numbers in the formula.

Volume = length x width x height

$$= 10 \text{ x } 10 \text{ x } 4$$

$$= 400$$

Now find the units. The lengths are measured in feet, so the volume is measured in cubic feet. The volume is 400 cubic feet.

Explanation#3

Volume of a rectangular prism:

Volume = length × width × height

Find the length, width, and height of the rectangular prism.

length: 8 mm
width: 5 mm
height: 8 mm

Use these numbers in the formula.

Volume = length x width x height

= 8 x 5 x 8

= 320

Now find the units. The lengths are measured in meters, so the volume is measured in cubic millimeters.

The volume is 320 cubic millimeters.