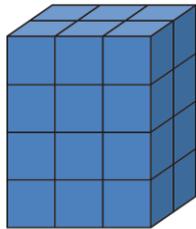


Lesson 8 Assessment

Determining the Volume of Rectangular Prism and Cylinders

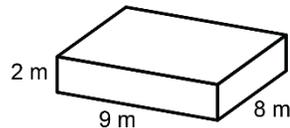
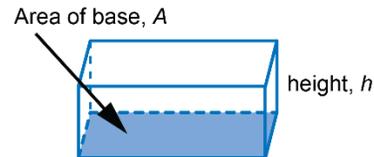
Determining the Volume of Rectangular Prisms and Cylinders

Understands that *volume* is a measure of the space filled by an object



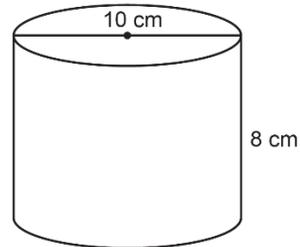
The volume of the prism is 24 unit cubes.

Understands that the volume of a rectangular prism is the product of the area of its base and its height



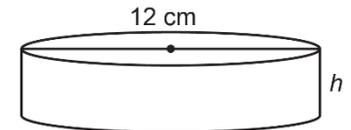
area of the base: $9 \times 8 = 72$
 The area of the base is 72 m^2 .
 area of base \times height: $72 \times 2 = 144$
 The volume of the box is 144 m^3 .

Determines the volume of a cylinder



area of base:
 $\pi \times r^2 \approx 3.14 \times 5^2$
 $= 78.5$
 The area of the base is about 78.5 cm^2 .
 Volume:
 $A \times h \approx 78.5 \times 8$
 $= 628$
 The volume is about 628 cm^3 .

Determines a missing measurement when given the other measurements



$$V = 452 \text{ cm}^3$$

What is the approximate height of the cylinder?

Volume:
 $V = \pi r^2 h$
 $452 \approx 3.14 \times 6^2 \times h$
 $452 = 113.04 \times h$
 $h = 452 \div 113.04$
 $h \approx 4$

The height is about 4 cm.

Observations/Documentation