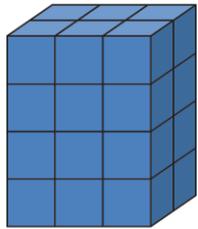


Activity 12 Assessment

Determining the Volume of Prisms and Cylinders

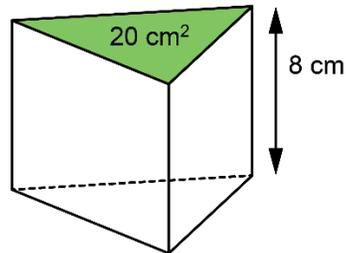
Determining the Volume of Prisms and Cylinders

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



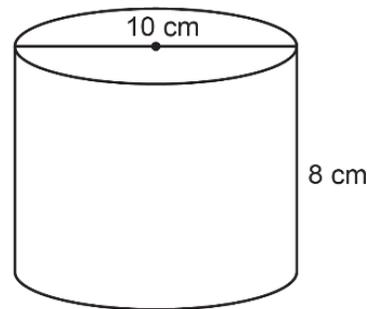
The volume of the prism is 24 unit cubes.

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



Volume of the triangular prism is:
 $20 \times 8 = 160$
 The volume is 160 cm^3 .

Determines the volume of a cylinder

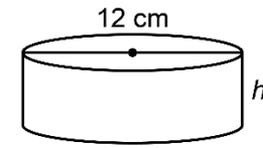


Base area of cylinder is: $\pi \times 5^2$
 Height of cylinder is: 8

Volume of the cylinder is:
 $\pi \times 5^2 \times 8 = 628.318\dots$

The volume is about 628 cm^3 .

Determines the area of the base, volume, or height of a rectangular prism or cylinder when given two of the three measurements



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

What is the approximate height of the cylinder?

Volume:

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

$$452 = \pi \times 6^2 \times h$$

$$452 = 113.09\dots \times h$$

$$h \approx 452 \div 113$$

$$h \approx 4$$

The height is about 4 cm.

Observations/Documentation