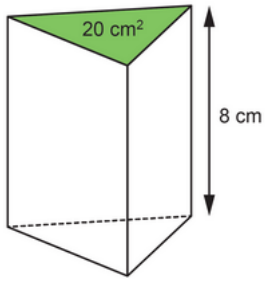
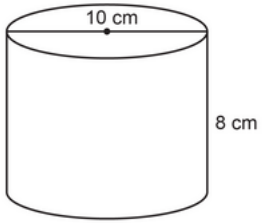
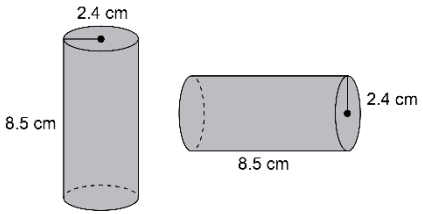
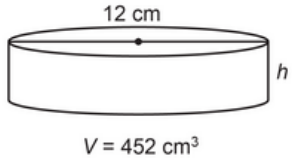
Shape and Space

Lesson 6 Assessment

Determining the Volume of Prisms

Determining the Volume of Prisms and Cylinders

Understands that the volume of a right prism is the area of its base times height	Determines the volume of a right cylinder	Understands that orientation of a right prism or right cylinder does not affect its volume	Determines a missing dimension of a right prism or right cylinder
 The volume of the right triangular prism is 20 cm × 8 cm = 160 cm³.	 area of base: $\pi \times r^2 \approx 3.14 \times 5^2$ $= 78.5$ The area of the base is about 78.5 cm². Volume: $A \times h \approx 78.5 \times 8$ $= 628$ The volume is about 628 cm³.	 The cylinders have the same volume because they have the same radius and height.	 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