

# Lesson 1 Problem-Solving Practice

## Volume of Cylinders

<p><b>1. WATER STORAGE</b> A cylindrical water tank has a diameter of 5.3 meters and a height of 9 meters. What is the maximum volume that the water tank can hold? Round to the nearest tenth. <b>198.6 m<sup>3</sup></b></p>	<p><b>2. PACKAGING</b> A can of corn has a diameter of 6.6 centimeters and a height of 9.9 centimeters. How much corn can the can hold? Round to the nearest tenth. <b>338.7 cm<sup>3</sup></b></p>
<p><b>3. CONTAINERS</b> Felisa wants to determine the maximum capacity of a cylindrical bucket that has a radius of 6 inches and a height of 12 inches. What is the capacity of Felisa's bucket? Round to the nearest tenth. <b>1,357.2 in<sup>3</sup></b></p>	<p><b>4. GLASS</b> Antoine is designing a new, cylindrical drinking glass. If the glass has a diameter of 8 centimeters and a height of 12.8 centimeters, what is its volume? Round to the nearest tenth. <b>643.4 cm<sup>3</sup></b></p>
<p><b>5. PAINT</b> A can of paint is 15 centimeters high and has a diameter of 13.6 cm. What is the volume of the can? Round to the nearest tenth. <b>2,179.0 cm<sup>3</sup></b></p>	<p><b>6. SPICES</b> A spice manufacturer uses a cylindrical dispenser like the one shown. Find the volume of the dispenser to the nearest tenth. <b>27.2 in<sup>3</sup></b></p> 