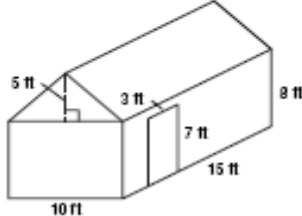
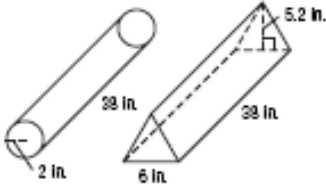


Problem Solving #2 - Surface Area of Prisms and Cylinders

<p>1. DECORATING Ms. Frank is going to wallpaper a living room with dimensions 24 feet long, 18 feet wide, and 8 feet high. What surface area does Ms. Frank plan to wallpaper?</p>	<p>2. MANUFACTURING The Acme Canning Company produces cans for chicken soup. If each can has a diameter of 2 inches and a height of $3\frac{1}{4}$ inches, how much aluminum is needed to make one can? Round to the nearest hundredth.</p>
<p>3. MUSEUM A museum curator needs to order a display case for a small artifact. The case needs to be a rectangular prism and made entirely of clear plastic. The bases must each measure $1\frac{1}{2}$ feet by $1\frac{3}{4}$ feet and the sides each 3 feet high. Find the cost of the case if the clear plastic costs \$10 per square foot.</p>	<p>4. SIDING The Ramirez family is going to put vinyl siding on a shed. They will cover all four walls completely, except for the door. The siding costs \$3 per square foot. How much will the siding cost for their shed?</p> <div style="text-align: center;">  </div>
<p>SHIPPING For Exercises 5–7, use the following information.</p> <p>FPS, a shipping company, uses a container in the shape of a triangular prism to pack blueprints, posters, and other items that can be rolled up to fit inside the container. Packages-R-Us uses a container shaped like a cylinder for the same purposes. The cardboard used to make each container costs the same amount per square inch.</p> <div style="text-align: center;">  </div>	<p>5. What is the surface area of the FPS box?</p>
<p>6. What is the surface area of the Packages-R-US box?</p>	<p>7. If each company buys 100 of these packages, which company will spend less money per package? Explain.</p>