Extra Example 4  Find Lateral Area

Find the lateral area of each figure.

a. 

b. 

**SOLUTION**

a. The lateral area is the perimeter of the triangular base times the height of the figure.

\[ L = Ph \]  

Surface area formula without bases

\[ = (1 + 1 + 1)(3.5) \]  

Substitute \((1 + 1 + 1)\) for \(P\) and \(3.5\) for \(h\).

\[ = (3)(3.5) \]  

Add inside parentheses.

\[ = 10.5 \]  

Multiply.

**ANSWER** The lateral area of the figure is 10.5 square centimeters.

b. The lateral area is the perimeter of the circular base times the height of the figure.

\[ L = 2\pi rh \]  

Surface area formula without bases

\[ = 2\pi(2)(5) \]  

Substitute 2 for \(r\) and 5 for \(h\).

\[ = 20\pi \]  

Simplify.

\[ \approx 62.8 \]  

Multiply. Use 3.14 for \(\pi\).

**ANSWER** The lateral area of the figure is about 62.8 square meters.