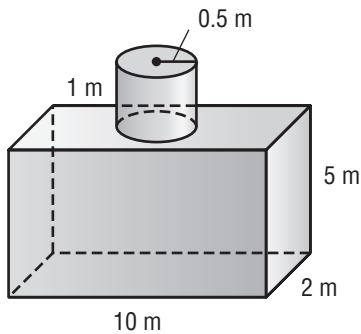
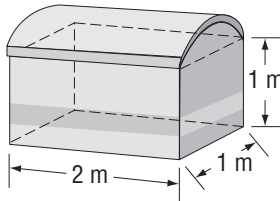


Reteach**Volume and Surface Area of Composite Figures****Example 1** Find the surface area of the composite figure.

To find the surface area, find the area of exposed surface and add them together. The lateral area of the prism is $50 + 10 + 50 + 10 = 120 \text{ m}^2$. The area of the bottom of the prism is $10 \times 2 = 20 \text{ m}^2$. The lateral area of the cylinder is height multiplied by circumference: $1 \times 2 \times \pi \times 0.5 \approx 3.1 \text{ m}^2$. The area of the top of the prism is 20 m^2 . So, the surface area is $120 + 20 + 3.1 + 20 = 163.1 \text{ m}^2$.

Example 2 Find the volume of the composite figure. Round to the nearest tenth.

The figure is made up of a rectangular prism and half a cylinder.

$$V = lwh + \frac{1}{2} \pi r^2 h$$

$$V = 2 \cdot 1 \cdot 1 + \frac{1}{2} \pi (0.5)^2 \cdot 2$$

$$V \approx 2 + 0.785 \text{ or } 2.785$$

The volume of the composite figure is about 2.8 cubic meters.

Exercises

- Find the volume of the composite figure. Round to the nearest tenth.
- Find the surface area of the composite figure. Round to the nearest tenth.

