Warm Up

Find the area of the figure.

1. Trapezoid with bases 12 ft and 18 ft and height 3 ft.
   \[ A = \frac{(12 + 18) \times 3}{2} \approx 27.5 \]

2. Circle with diameter 8.2 in.
   \[ A = \pi \times (\frac{8.2}{2})^2 \approx 52.8 \]

3. Regular hexagon with side length 14 cm.

12-4 Volume of Prisms and Cylinders

Volume of a cube - \[ V = s^3 \]

Volume of a prism - \[ V = l \times w \times h \]

Volume of a cylinder - \[ V = \pi r^2 h \]
Ex 1  Find the volume of the solid.

Ex. 2  Find the volume of the solid.
Ex 3  Find the volume of the right hexagonal prism.

\[
V \approx 2618.9 \text{ cm}^3
\]

Ex. 4  Find the volume of the right prism.

\[
A = \frac{1}{2} \cdot a \cdot P
\]

\[
A \approx 374.1 \text{ cm}^2
\]
Ex 5  Find the volume of the cylinder.

\[ \pi \cdot 40^2 \cdot 10 \]

\[ 50,265.4 \text{ ft}^3 \]

Ex. 6  Find the volume of the oblique cylinder.