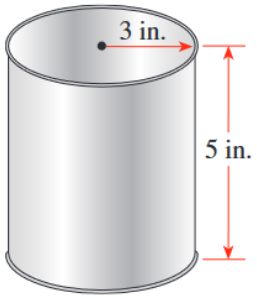
Exercise 6

Using Models Use the model given to answer the questions about the object or process being modeled.

The volume V of a cylindrical can is modeled by the formula

$$V = \pi r^2 h$$

where r is the radius and h is the height of the can.
Find the volume of a can with radius 3 in. and height 5 in.



Solution

Plug in $r = 3$ in. and $h = 5$ in. into the formula.

$$V = \pi(3 \text{ in})^2(5 \text{ in}) = 45\pi \text{ in}^3 \approx 141 \text{ in}^3$$