## Volume of Cylinders and Cones

1. Find the volume of the cylinder.

2. Find the volume of a cylinder with base area $25 \pi \mathrm{~cm}^{2}$ and height 3 cm more than the radius.
3. Find the volume of the cone.

4. Find the volume of the cylinder.

5. Find the diameter of the base of a cylinder with a volume of $400 \mathrm{in}^{3}$ and a height of 10 in .
6. The volume of the ice cream cone is 3.6 in $^{3}$ find the height.

7. Find the height of a cone with a volume of $686 \mathrm{~mm}^{3}$ and a radius of 14 mm .
8. A cone just fits inside a cylinder with a volume of $870 \mathrm{in}^{3}$. What is the volume of the cone?
9. The science club has designed a model rocket as shown in the diagram below. What is the volume of the rocket?


CHALLENGE: Determine the volume of the following.


