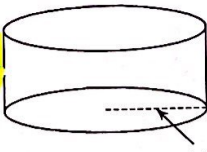
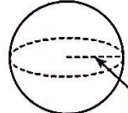
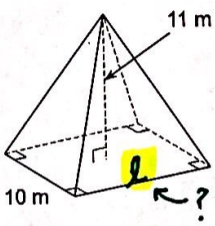
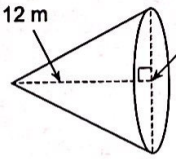


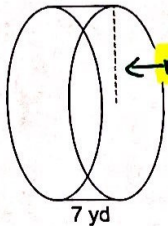
Given the volume, find the indicated dimension.

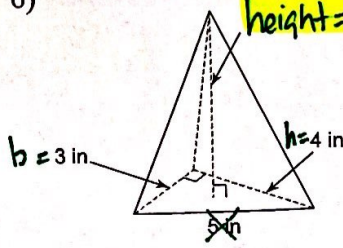
1)  **Cylinder**
 $V = \pi r^2 h$
 $1089\pi = \pi (11)^2 h$
 $\frac{1089\pi}{\pi (11)^2} = \frac{\pi (11)^2 h}{\pi (11)^2}$
 $9 \text{ km} = h$

2)  **Sphere**
 $V = \frac{4}{3} \pi r^3$
 $V = 1774.67\pi \text{ mi}^3$
 $1774.67\pi = \frac{4}{3} \pi r^3$
 $\frac{4}{3} \pi \cdot \frac{3}{4} = \frac{4}{3} \pi \cdot \frac{3}{4}$
 $\sqrt[3]{1331.0025} = \sqrt[3]{r^3}$
 $11 \text{ mi} = r$

3)  **rectangular pyramid**
 $V = \frac{1}{3} (l \cdot w) h$
 $403.33 = \frac{1}{3} (l \cdot 10) 11$
 $\frac{1}{3} \cdot 10 \cdot 11 = \frac{1}{3} \cdot 10 \cdot 11$
 $11 \text{ m} = l$

4)  **Cone**
 $V = \frac{1}{3} \pi r^2 h$
 $144\pi = \frac{1}{3} \pi r^2 \cdot 12$
 $\frac{1}{3} \pi \cdot 12 = \frac{1}{3} \pi \cdot 12$
 $\sqrt{36} = \sqrt{r^2}$
 $6 = r$
 $12 \text{ m} = d$

5)  **Cylinder**
 $V = \pi r^2 h$
 $847\pi = \pi r^2 \cdot 7$
 $\frac{847\pi}{\pi \cdot 7} = \frac{\pi r^2 \cdot 7}{\pi \cdot 7}$
 $\sqrt{121} = \sqrt{r^2}$
 $11 \text{ yd} = r$

6)  **Triangular Pyramid**
 $V = \frac{1}{3} BH$
 $V = \frac{1}{3} (\frac{1}{2} bh) H$
 $12 = \frac{1}{3} (\frac{1}{2} \cdot 3 \cdot 4) H$
 $\frac{1}{3} (\frac{1}{2} \cdot 3 \cdot 4) = \frac{1}{3} (\frac{1}{2} \cdot 3 \cdot 4)$
 $6 \text{ in} = H$