

Multiply both sides by 3: $3 \cdot V = 3 \cdot \frac{1}{3}\pi r^2 h$

Simplify: $3V = \pi r^2 h$

Divide both sides by πr^2 : $\frac{3V}{\pi r^2} = \frac{\pi r^2 h}{\pi r^2}$

Simplify: $\frac{3V}{\pi r^2} = h$