$$R = \frac{\rho L}{A}$$

$$R = \frac{\rho 4L}{\frac{\pi r^2}{4}}$$

$$R = \frac{\rho 16 L}{A}$$

$$A = \pi R^2$$

$$R = \frac{\rho L}{A} \times 16$$

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

$$= \frac{\pi r^2 4l}{4}$$

$$= \pi \left(\frac{r}{2}\right)^2 4$$

$$\hookrightarrow R$$

$$\pi\left(\frac{l^2}{4}\right)$$

$$A = \frac{\pi l r^2}{4}$$

$l$