

(a) : $m = (0.60 \pm 0.003)\text{g}$, $r = (0.50 \pm 0.01)\text{ cm}$
 $l = (10.00 \pm 0.05)\text{ cm}$

Density, $d = \frac{\text{Mass}}{\text{Volume}} = \frac{m}{\pi r^2 l}$

$$\frac{\Delta d}{d} \times 100 = \left(\frac{\Delta m}{m} + 2 \cdot \frac{\Delta r}{r} + \frac{\Delta l}{l} \right) 100$$

$$= \left(\frac{0.003}{0.60} + \frac{2 \times 0.01}{0.50} + \frac{0.05}{10} \right) 100 = 5\%$$