

Problem 5

(II) What is the percent uncertainty in the measurement 5.48 ± 0.25 m?

Solution

The percent uncertainty of $x \pm \Delta x$ is

$$P = \frac{\Delta x}{x} \times 100\%,$$

so for 5.48 ± 0.25 m it is

$$P = \frac{0.25}{5.48} \times 100\% \approx 4.6\%.$$