

PRE-LAB #42

(EXAMPLE WRITE-UP)

(Assume this was the question - you don't need to include it or write it out on your paper:

"A dude drives 2.0 miles in 30.0 seconds. What is his speed in $\frac{\text{ft}}{\text{sec}}$?")

Known:

$$\Delta x = 2.0 \text{ mi}$$

$$\Delta t = 30.0 \text{ sec}$$

Unknown:

$$v = ?$$

$$v = \frac{\Delta x}{\Delta t}$$

(since my unknown is already on the left-hand side, I don't need to rearrange. You wouldn't need to write this...)

$$= \frac{2.0 \text{ mi}}{30.0 \text{ s}}$$

$$= 0.0667 \frac{\text{mi}}{\text{s}} \times \left(\frac{5280 \text{ ft}}{1 \text{ mi}} \right)$$

$$= 352 \frac{\text{ft}}{\text{s}}$$

$$v = 3.5 \cdot 10^2 \frac{\text{ft}}{\text{s}}$$

(keeping only 2 sig figs, showing units, with a clear box around answer)