

# SIGNIFICANT DIGITS - Used with measurements

$$2.378 \text{ m} * 5.42 \text{ m} = 12.88876 \text{ m}^2$$

1) All nonzero digits are significant.

$$\underline{\underline{360,000}} \text{ m} \quad 2$$

2) Zeros between 2 sig. digits are significant

$$0.000\underline{\underline{793}} \text{ ft.} \quad 3$$

3) Zeros at the end of a decimal fraction are significant.

$$\underline{\underline{50,090}} \text{ in.} \quad 4$$

$$0.00\underline{\underline{730}} \text{ cm} \quad 3$$

4) Mult./Div = Round to the smallest # of sig. digits in the original measurements

$$\underline{\underline{860.03}} \text{ ft} \quad 5$$

$$\underline{\underline{7000.0}} \text{ m} \quad 5$$

$$\underset{2}{7.2} \text{ ft} * \underset{3}{3.65} \text{ ft} = 26.28 \text{ ft}^2$$

$$\approx 26 \text{ ft}^2$$

5/ Add & Subtr. = Use the smallest # of decimal places in the original measurements.

$$\begin{array}{r} 7.2 \text{ ft} \\ + 3.65 \text{ ft} \\ \hline 10.85 \text{ ft} \end{array}$$

$$\approx 10.9 \text{ ft.}$$

$$A = \frac{4 \cdot A}{l}$$

Do not use sig. digits

$$\frac{4 \cdot 3.68 \text{ m}^2}{9.26 \text{ m}}$$

only look at sig digits  
10 measurements  
 Ignore constant #'s

Unit Conversion - Convert to  $\frac{\text{mi}}{\text{hr}}$   $1 \text{ mi} = 5280 \text{ ft.}$

$$\frac{240 \text{ ft}}{\text{sec}} \cdot \frac{1 \text{ mi}}{5280 \text{ ft}} \cdot \frac{3600 \text{ sec}}{1 \text{ hr}}$$

$$= \frac{240 \cdot 3600}{5280} \frac{\text{mi}}{\text{hr}}$$

$$= \frac{1800}{11} \frac{\text{mi}}{\text{h}}$$

$$60 \text{ sec} \cdot 60 \text{ min} \\ = 3600 \text{ sec}$$



