## TT ENGINEERING STUDENT SUCCESS CENTER

## Metric Conversions and Scientific Notation - Reference Sheet

| VOLUME (APPROXIMATE) $\begin{aligned} 1 \text { teaspoon }(\mathrm{tsp}) & =5 \text { milliliters }(\mathrm{ml}) \\ 1 \text { tablespoon }(\mathrm{tbsp}) & =15 \text { milliliters }(\mathrm{ml}) \\ 1 \text { fluid ounce }(\mathrm{fl} \mathrm{oz}) & =30 \text { milliliters }(\mathrm{ml}) \\ 1 \text { cup }(\mathrm{c}) & =0.24 \text { liter }(\mathrm{I}) \\ 1 \text { pint }(\mathrm{pt}) & =0.47 \text { liter }(\mathrm{I}) \\ 1 \text { quart }(\mathrm{qt}) & =0.96 \text { liter }(\mathrm{l}) \\ 1 \text { gallon }(\mathrm{gal}) & =3.8 \text { liters }(\mathrm{l}) \\ 1 \text { cubic foot }\left(\mathrm{cu} \mathrm{ft}, \mathrm{ft}^{3}\right) & =0.03 \text { cubic meter }\left(\mathrm{m}^{3}\right) \\ 1 \text { cubic yard }\left(\mathrm{cu} \mathrm{vd}, \mathrm{yd}^{3}\right) & =0.76 \text { cubic meter }\left(\mathrm{m}^{3}\right) \end{aligned}$ | VOLUME (APPROXIMATE) $\begin{aligned} 1 \text { milliliter }(\mathrm{ml}) & =0.03 \text { fluid ounce }(\mathrm{fl} \mathrm{oz}) \\ 1 \text { liter }(I) & =2.1 \text { pints }(\mathrm{pt}) \\ 1 \text { liter }(I) & =1.06 \text { quarts }(\mathrm{qt}) \\ 1 \text { liter }(I) & =0.26 \text { gallon (gal) } \end{aligned}$ $\begin{aligned} & 1 \text { cubic meter }\left(\mathrm{m}^{3}\right)=36 \text { cubic feet }\left(\mathrm{cu} \mathrm{ft}, \mathrm{ft}^{3}\right) \\ & 1 \text { cubic meter }\left(\mathrm{m}^{3}\right)=1.3 \text { cubic vards }\left(\mathrm{cu} \mathrm{vd} . \mathrm{vd}^{3}\right) \end{aligned}$ |
| :---: | :---: |

## Conversions

| Given value | wanted |
| :--- | :--- |
|  | given unit |



## Significant Figures, Uncertain digits, and Rounding

- x and $\div$ : based on least significant figures; Unless the result has 1 as its leading sig. fig. and none of the original \#'s had a leading 1 , keep the extra digit.
-     + and -: Round based on only 1 uncertain figure
- $x$ and $\div$ AND + and $-:$ After EACH operation, DO NOT round if the same, round if different
- Rounding exception: when the 1st digit dropped is 5 AND there are no (non-zero) digits following, round off to the nearest even digit.

