Sample Results

Part A-Estimation of Physical quantities

Quantity	Reference value	Estimated	% error
time	30s / 60s	/	/
mass	large/small	/	/
length	1 meter	/	

Part B-(More Precise measurement techniques)

Wood Block

$mass_{wood} \pm \delta mass_{wood}$ $mass_{wood} \pm \delta_{\%} mass_{wood}$

V_{wood}

ρ_{wood}

Metal Object

$mass_{metal} \pm \delta mass_{metal}$ $mass_{metal} \pm \delta_{\%} mass_{metal}$

V_{metal}

ρ_{metal}

Pi from plot **%error**

Helpful Hints

All values above should have units in the appropriate place.

Note that mass has both absolute uncertainty and fractional uncertainty.

Also note that there is no error propagation required for the Volume and Density

*You should use the following general rules for determining the correct number of significant figures (sig figs) for both **volume** and **density**. These calculations should be shown in your **Sample Calculations**.*

When **multiplying and dividing** several quantities, the number of significant figures in the final answer is the same as the number of significant figures in the least precise (member) of the quantities being multiplied.

When numbers are **added or subtracted**, the number of decimal places in the result should equal the smallest number of decimal places of any term the sum

For help – **Google -** "sig figs when adding and multiplying"