

SCIENCE 1206
Study Guide



Know the following terms:

Physics	Qualitative Descriptions:	Quantitative Descriptions
Le Système International d'Unités (SI)	Base Unit	Derived Unit
Conversion Factor	Accuracy	Precision
Significant Digits	Systematic error	Random error
Independent Variable	Dependent Variable	Line of Best Fit
Slope	Instantaneous Speed	Average Speed

Know the following:

- Distinguish between qualitative descriptions and quantitative descriptions
- Distinguish between base units and derived units
- Be able to convert between various units of measure (base and derived)
(Remember x or ÷ for km/hr <=> m/s
- Identify and round significant digits
- Understand and apply rules for Significant Digits (+, -, X and ÷)
- Know Scientific Notation
- Know sources of and ways of preventing them:
 - Random
 - Systematic
- Know what Parallax is and how to reduce it
- Be able to calculate the percent Discrepancy

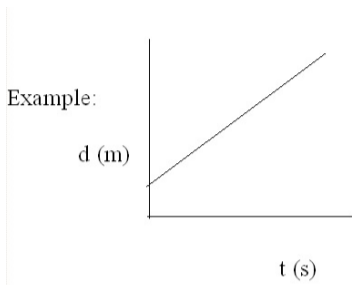
$$\% \text{ Discrepancy} = \frac{\text{Experimental value} - \text{accepted value}}{\text{accepted value}} \times 100$$

- Be able to distinguish and identify the independent and dependent variable.
- How to create a graph

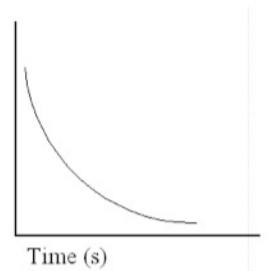
- Be able to graph data and draw the “Line of Best Fit”
- Be able to calculate the slope of a line

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$

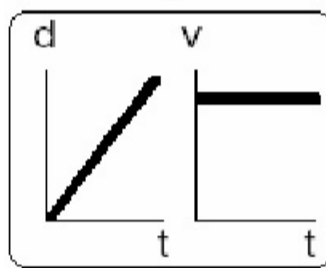
- Know the different types of relationships
 - Direct proportionally



Inverse (Indirect) Proportionally

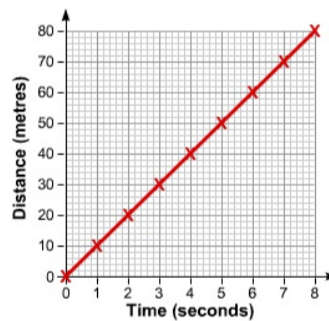


- Distinguish Between Uniform Motion (constant speed) and Non- uniform motion (acceleration)
- Identify a d-t and v-t graph for uniform motion



- Understand the following for a d-t graph

- Read vales off the Graph
- Slope indicates the speed



- Know Instantaneous Speed (the speed at which an object is moving at a particular moment in time)
- Understand Average Speed (distance per time ratio. is a measure of the distance traveled in a given period of time)

$$V_{\text{ave}} = \frac{\Delta d}{\Delta t}$$

- Know worksheets 1 to 10 which can be found on www.mrfifieldcorner.weebly.com

