

DATA TABLES

1. Chart used to organize data-used to create graphs
2. Should contain:
 - a. Descriptive Title
 - b. Independent Variable & unit (always the 1st column)
 - c. Dependent Variable & unit (other columns)
3. Every variable should be labeled and have an unit in parenthesis

GRAPHS

Graphs are pictures of the data. Use pencil to create graphs.

Three Types of Graphs

1. Line graph-plot 2 variables being compared (time is often one of the variables)
2. Bar graphs-plot totals or averages.
3. Pie Graph-plot percentages

Line & Bar Graph Parts

1. Label with descriptive title.-combine IV & DV to create title
 - A. Label X axis
 - i. Line graph- label with independent variable & unit
 - ii. Bar graph- label with name of items being compared
 - B. Label Y axis
 - i. Line graph-label with dependent variable & unit
 - ii. Bar graph- with dependent variable's total or average & unit
2. EQUAL INCREMENTS when numbering the axes.
 - A. Always start each axis at ZERO.
 - B. On data table, circle the highest value for IV and DV.
 - C. Count by equal increments from 0 to highest number and write increments on each axis.
3. Plot data points on graph using pencil. Connect plots with line. If multiple line graph, plot all points for next variable and connect. Continue for all variables..
4. Color lines/bars and make keys for easy reading. Key should be on graph.

Circle Graphs

Percentages & angles need to be calculated.

How to Create

1. Show all work or no credit (every number you enter in calculator)
2. Add all the DV to get a grand total.
3. Create a fraction using the largest number. (number/ total). For example: 320/949
4. Divide fraction to get decimal. Round to thousandths. Ex. $.320/949=.337$
5. Multiply decimal by 100 to get PERCENTAGE. Ex. $.337 \times 100=33.7\%$
6. Multiply same decimal by 360 to get ANGLE. Ex. $.337 \times 360=121^\circ$
7. Draw circle and one radius line at the 3:00 position.
8. Use protractor to measure & draw largest angle calculated.
9. Label with DV & percentage. Print labels horizontally..
10. Repeat steps #3-#9 for the second largest angle. Begin angle using last line draw (shares line w/previous angle).
11. Color when finished.
12. Give descriptive title.