## Graphing Guidelines

- Purpose of graphing: to express large quantities of data in a concise way
- X-axis: where independent variable is typically plotted (horizontal)
- Y-axis: where dependent variable is typically plotted (vertical)
- Elements of a graph:
- Descriptive title (What does the graph show us? Gives additional info that is not available in the axes titles alone. Simplest form: dependent vs independent variable. But elaboration best.)
- Axes:
- Tick marks at regular numbered increments
- Labelled, with units
- Data points
- (Legend)
- Trendline*
- Linear data:
- Line of best fit: straight line that follows data; has $\sim$ same number of points above as below it
- Non-linear data:
- Connect the dots
- Follow the curve
*not always required
- Good graph:
- Will take up a reasonable amount of space. Aim for half a page at least; as much space, the better!
- Axes will be scaled appropriately to the amount of space you have to work with. (Should use as much of the axis as possible! Tip: Divide largest value by \# of squares)
- Neat and tidy! Use pencil for majority of graph! (pen for axes, labels, etc. is ok)

Flood frequency data for Embarrass River near Embarrass, WI


Eruptive products of the 1915 eruption of Lassen Peak




