

# Statistics 1<sup>st</sup> six weeks -- Cothran

## I. DATA

### Data Tables

1. Variables and Records
  - a. categorical
  - b. quantitative
2. Context
  - a. Who, What, Where, When, Why, and How?

## II. DISTRIBUTIONS

- a. Displaying Distributions
  1. Stem plots
    - a. Draw and interpret stem plots
    - b. Draw and interpret back to back stem plots
  2. Box plots
    - a. Draw and label box plots
    - b. Compare sets of box plots
  3. Histograms
    - a. Draw histograms with different scales
    - b. Compare sets of histograms
  4. Graph and read time plots
  5. Interpreting displays
    - a. Draw general conclusions from looking at displays
    - b. Recognize shortcomings of some displays
  6. Calculator displays
    - a. Create box plots, histograms, and time plots
    - b. Change the appearance in displays by changing the Scale in the calculator

### Describing Distributions

1. Measures of center
  - a. Calculate the mean of a data set
  - b. Calculate the median of a data set
2. Measures of spread
  - a. Calculate quartiles and the IQR
  - b. Calculate variance and standard deviation

### Categorical Data

1. Two-way tables
  - a. Create and interpret graphs of categorical data
  - b. Calculate marginal and conditional distributions
2. Bar Graph
3. Pie Graph
4. Simpson's Paradox