

Announcements



Transferring Data

- Sometimes data needs to be cleaned up for spreadsheet uploading
- You can use an editor or word processor for cleanup
- You can remove special characters or add new ones (e.g. separators , |)
- Example

Standard Deviation

- Calculating averages using “AVERAGE”
- Standard Deviation:
 - how close a set of values are to the average
 - how steep the curve associated with values will be
- Calculating deviation using “STDEV”
- Example

Correlation

- Correlation: will look at two sets of numbers to determine a possible relationship between the values.
- Mathematical correlation of 1.0 → perfect positive correlation
- Mathematical correlation of -1.0 → perfect negative correlation
- Calculating correlation using CORREL
- Examples

X-Y Graphs

- X-Y graphs can help you tell more about a correlation
- X-Y graphs – Allows you to associate data with different axis
 - Example

Margin of Error

- You can compute a margin of error for an average using the correlation function
- =confidence(alpha, stdev, number of trials)
 - Alpha → represents how confident you want to be in the margin of error
 - Typical alpha is .05 → You want to be 95% confident in the margin of error being calculated
- If for a set of values you have an average of 7.36 and the confidence formula returns .04 for an alpha of .05 that means you can be 95% confident the “true” value in the set is $7.36(\pm .04)$ (basically between 7.32 and 7.40)

Error Messages

- **####** -- The value won't fit in the space provided
- **#VALUE** -- The wrong type of data is in a cell or formula
- **#DIV/0!** -- trying to divide by 0
- **#NAME?** -- text within a formula is not recognized as a defined name
- **#REF!** -- Cell reference within a value rule is invalid
- **#NUM!** -- Numbers in a value rule are invalid

Sorting Data

- Sorting data on a single field sort
 - Data→Sort
- Sorting multiple field sort

Printing

- To switch between printing values and formulas
 - Tools→Options...→View
 - Under “Window Options” check “formulas”

Other Sheets

- To reference a cell in another sheet

=SheetName!cellAddress

Example: =Sheet1!A1

Any change in the cell will be seen in the second sheet

- To Link to a cell in another worksheet

- ❑ Select the cell you want to copy
- ❑ Use Control-C to copy it
- ❑ Go to the other worksheet
- ❑ Use Edit/Paste Special/Paste Link
- ❑ When the original changes the copy will change

Formulas you should be familiar

- average
- sum
- correl
- stdev
- count → number of non-blank cells in a range
- max → largest value in the set
- min → smallest value in a set
- median → number in the middle of a set of values

Another Spreadsheet Software

- `sc` (spreadsheet calculator) on the UNIX system
- `% sc filename`
- Not available on the class cluster
- Indicate strings using
 - `<` for left justified (less than sign)
 - `>` for right justified (greater than sign)
- Indicate value rules using `=` (equal sign)
- Indicate numbers using `=` (equal sign)
- Indicate functions using `@` (at sign)
- Indicate ranges using `:` (colon)
- Indicate absolute addressing using `$` (dollar sign)