
Announcements

- ❖ Check your grades online
-

Spreadsheets

- Application Software designed to aid users in entering, moving, copying, labeling, displaying and calculating numbers (in a tabular format)
- Each table called
 - spreadsheet
 - worksheet
 - collection of worksheets = a workbook
- Examples
 - Microsoft Excel
 - Quatro Pro
 - Lotus 1-2-3
 - sc (spreadsheet calculator) on the UNIX system

Entering Values

- Type in
 - formula bar
 - cell
- From an ASCII text file
 - Format Required
 - identifiable columns
 - standard width or delimiter (marker) between fields

Basic Elements

- Spreadsheets elements
 - Columns
 - Rows
 - Cells (intersection of numbered row and column)
- Each cell can have
 - constants – 10.2
 - text – (e.g., “Joseph Smith”)
 - formulas - =10/2

Basic Elements

- We will use Excel as our spreadsheet program
- **Example1.xls(Sheet1)**
 - Cells referred to by letter followed by number
 - Notice the automatic recalculation feature
- Standard math operations (+,-,/,*) available in spreadsheet programs
- Blocks of cells
 - To select several cells use commas
 - A6, A9, A7
 - To select a range of cells use :
 - A6:A9

Formulas

- ❑ Over 330 predefined formulas in Microsoft Excel
- ❑ Common formulas (notice case is irrelevant)
 - Sum – `sum(A6:A9)`
 - Max – `max(A6,A8)`
 - Min – `min(A6,A8)`
- ❑ Function Wizard
- ❑ IF formula

Syntax: `IF(cond, value if cond is true, value if cond false)`
- ❑ Example 1
 - `IF(A7<10, "Small Class", "Large Class")`
- ❑ Example 2 (Nested)
 - `=IF(A7<10,"Small Class",IF(A7<50,"Medium Size Class","Large Class"))`

Relative vs. Absolute Cell Addressing

- To see what relative vs. absolute cell addressing means let's try to copy some of the cells we have created.
 - ❑ Copying a numeric value
 - ❑ Copying a formula – cells information is copy relative to its position
- Absolute address
 - ❑ A cell reference can be defined as absolute by preceding row and column values with a \$
 - ❑ You can fix the row, column or both.

Web Resources

- ❑ General research
 - <http://lib.stat.cmu.edu/DASL/>
 - some just raw data others graphed
- ❑ Movie Data
 - <http://us.imdb.com>
 - some voting statistics on movies

Formatting

- ❑ Inserting rows/columns
- ❑ Column width change
 - Choose Column
 - Using Menu→Format→Column→Width
- ❑ Formatting Numbers
 - Select values
 - Choose Format→Cells→Number
 - Other options
- ❑ Formatting Currency
 - Select Values
 - Choose Format→Cells→Number→Currency
- ❑ Difference between format and value
- ❑ Formatting Date and Time
 - Select Values
 - Choose Format→Cells→Number→Date

Charts (Pie Chart)

- ❑ (Data in **Example2.xls**)
- ❑ Altering the basic type
- ❑ Tagging/formatting your pie chart
 - Right-Click→Format Data Series→Data Labels
 - Right-Click→Format Data Series→Options
- ❑ Legend
 - Right-Click→Source Data→Series