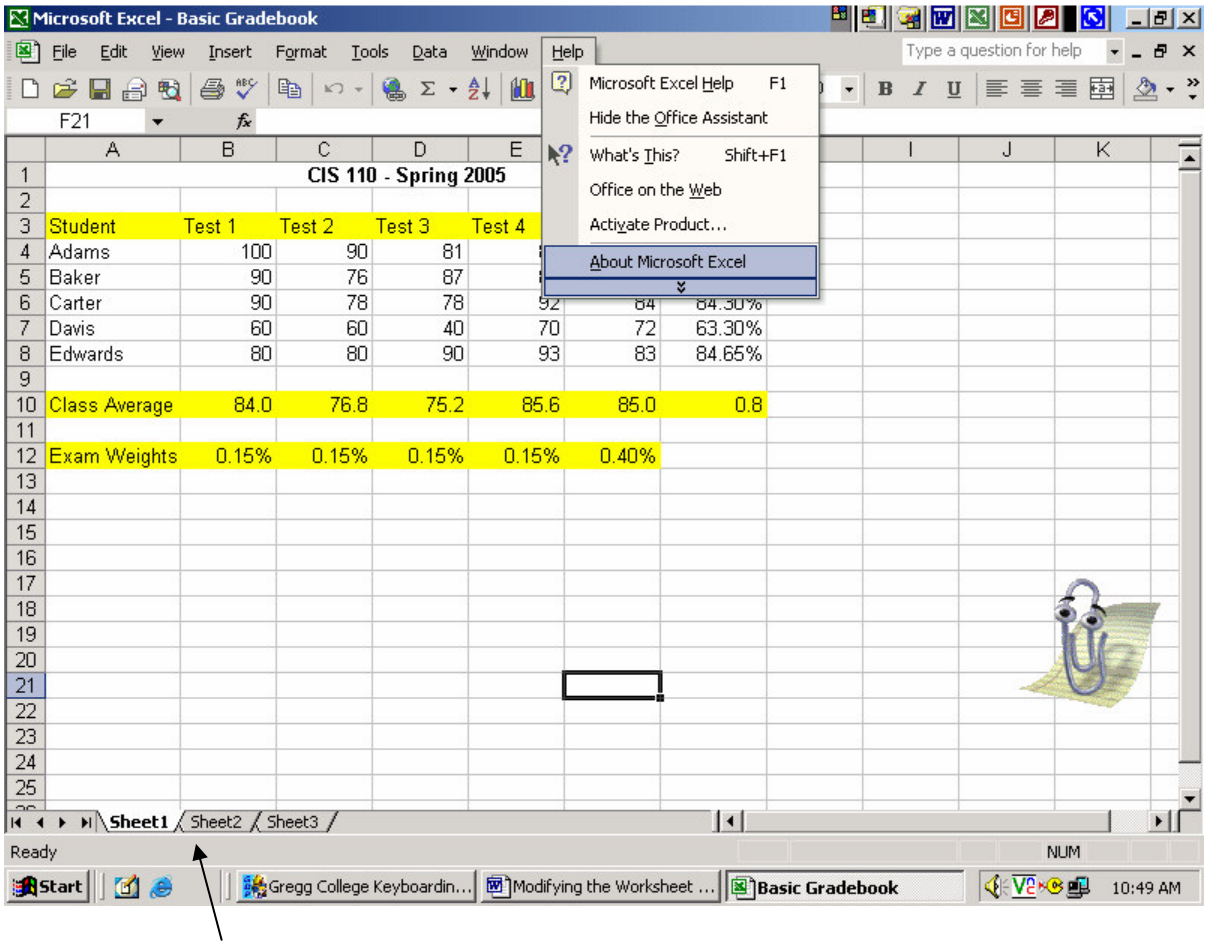
Microsoft Excel 2000
Using Formulas to Calculate Grades

Quick Reference Guide

Excel Workshop

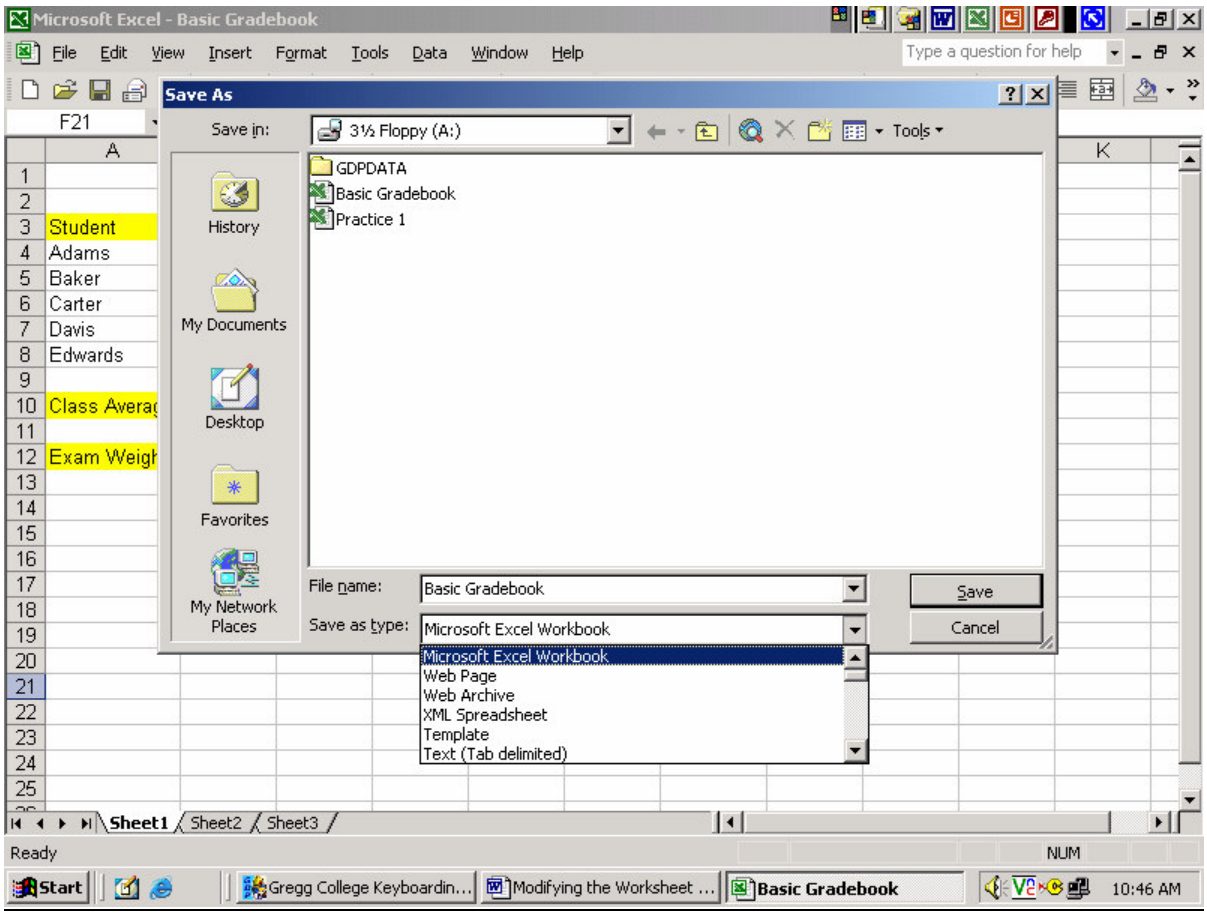
Determine the version of Excel by selecting the *About Microsoft Excel* option in the *Help Menu*.



Worksheet Tabs can be used for each class

The Save As Command

Pull down the *File Menu*. Click *Save As* to display the dialog box shown below.



Incompatible File Types

The newer releases can open workbooks created in preceding older versions of Excel, but the older versions cannot open workbooks created in the newer releases of Excel. You can, however, maintain compatibility with the earlier versions by using the Save As command to specify which type in which to save the file.

Review

Formula

=$B$12*B4+$C$12*C4+$D$12*D4+$E$12*E4+$F$12*F4

Relative – a relative reference adjusts during a copy operation.

Absolute – an absolute reference remains constant when copied and is specified with a dollar sign in front of the column and/or row

Functions

A *function* is a predefined formula that accepts one or more arguments as input, performs the indicated calculation, and then returns another value as output. Excel has more than 100 *functions*.

The **SUM** function computes the total of a selected range of numbers.

=SUM(B4:B9)

The **AVERAGE** function computes the average by adding a selected range of numbers and dividing the result by the number of cell references within the selected range. *(Note: cells that are empty of cells that contain text values are not included in the computation.)*

=AVERAGE(B4:B9)

The **MAX** and **MIN** functions return the highest and lowest values respectively from a list. They are done in a comparable way as the AVERAGE function.

=MAX(B4:B9)
=MIN(B4:B9)

The **PMT** function requires three arguments:

1-) the interest rate,
2-) the number of periods, and
3-) the amount of the loan (entered as a negative amount)

from which it computes the associated payment on a loan. Arguments are placed in parenthesis and are separated by commas. In the following example the specific values are supplied by using cell references.

=PMT(B5/12,B6*12,-B4)

The **IF** function enables decision making to be implemented within a worksheet. The IF function has three arguments:

1-) a condition that is evaluated as true or false
2-) the value to be returned if the condition is true, and
3-) the value to be returned if the condition is false

The IF function returns either the second or third argument, depending on the result of the condition.

=IF(condition**,**value-if-true**,**value-if-false)

Relational Operators

=	Equal to
<>	Not equal to
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to

The **VLOOKUP** function determines where within a specific table a numeric value is found, and displays the corresponding entry.

=VLOOKUP(I4,$I$21:$J$25,2)

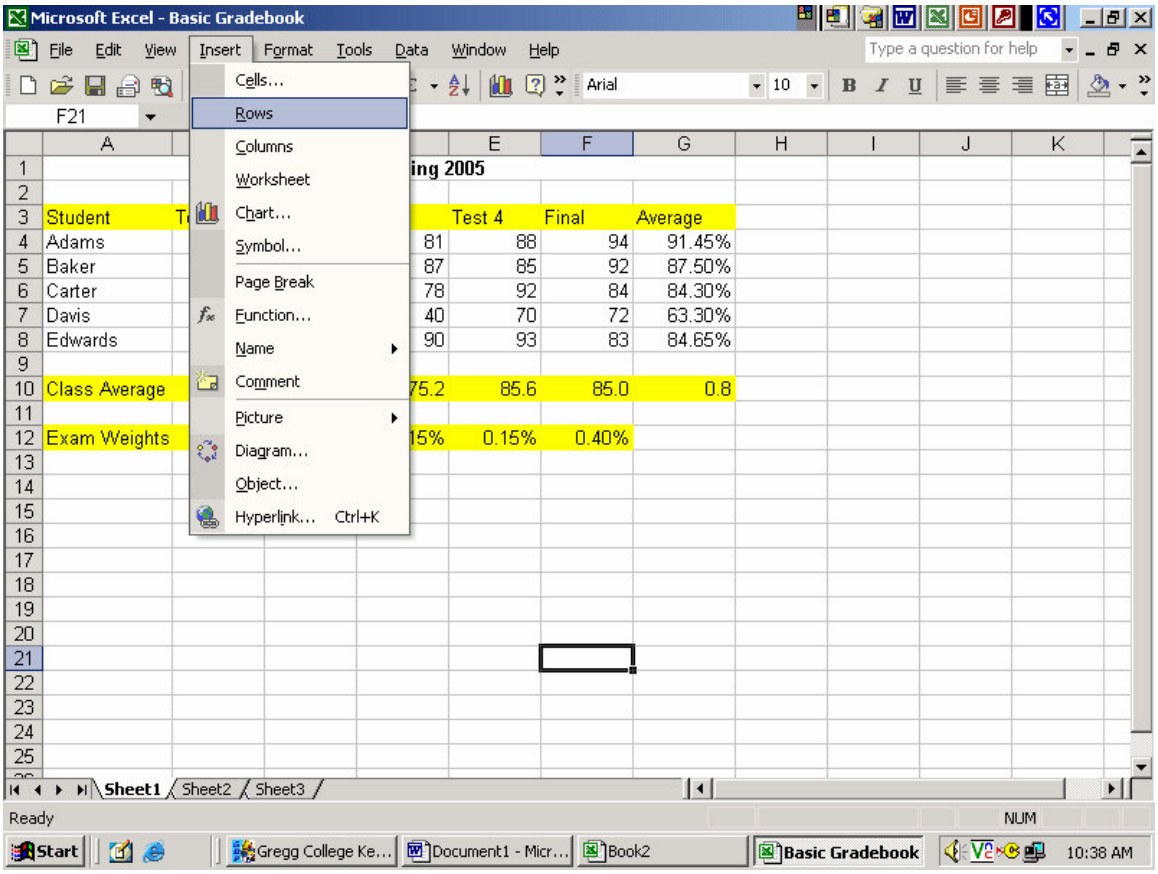
The first argument is the value to look up. A relative reference is used so that the address will adjust when the formula is copied to the other rows in the worksheet.

The second argument is the range of the table. Absolute references are specified so that the addresses will not change when the function is copied.

The third argument indicates the column containing the value to be returned.

Insert and Delete Commands

The *Insert Command* adds rows or columns to an existing worksheet. The Delete command removes existing rows or columns. Both commands will automatically adjust the cell references in existing formulas to account for the insertion or deletion of rows and columns.

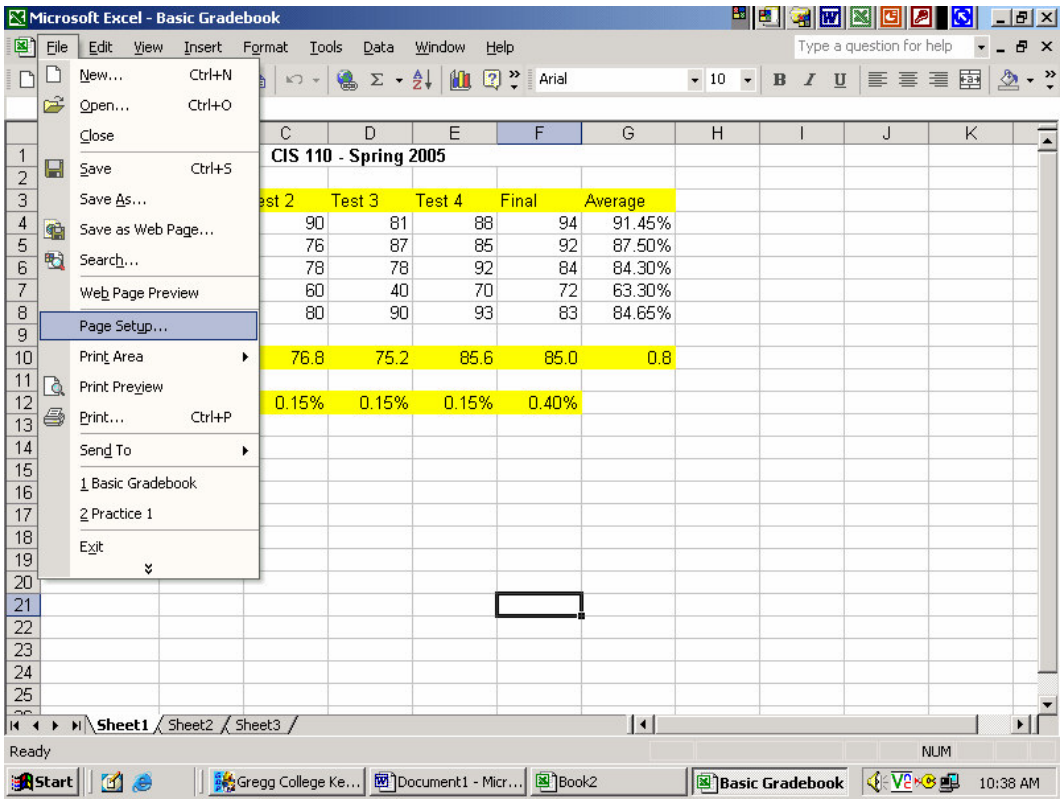


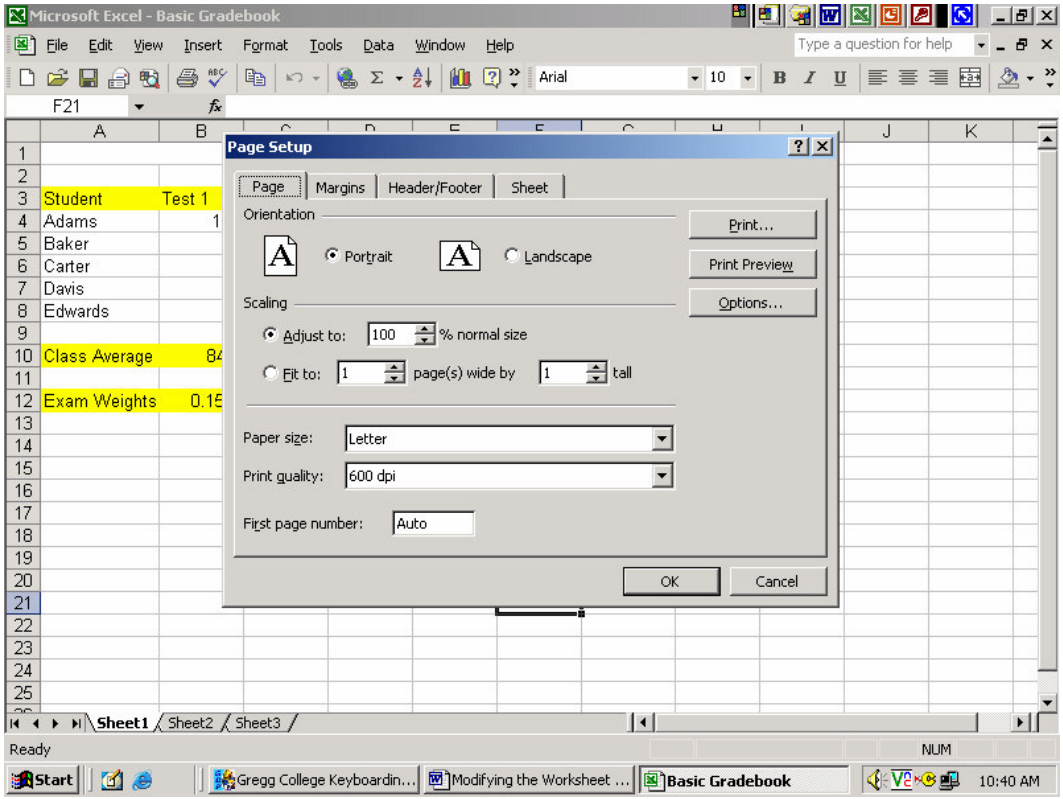
Erasing versus Deleting

The *Edit Delete* command deletes the selected cell, row or column from the worksheet. It is very different from the *Edit Clear* command, which erases the contents and/or formatting of the selected cells; but does not delete the cells from the worksheet. The *Edit Delete* command causes Excel to adjust cell references throughout the worksheet. The *Edit Clear* command does not adjust cell references because no cells are added or removed.

Page Setup Command

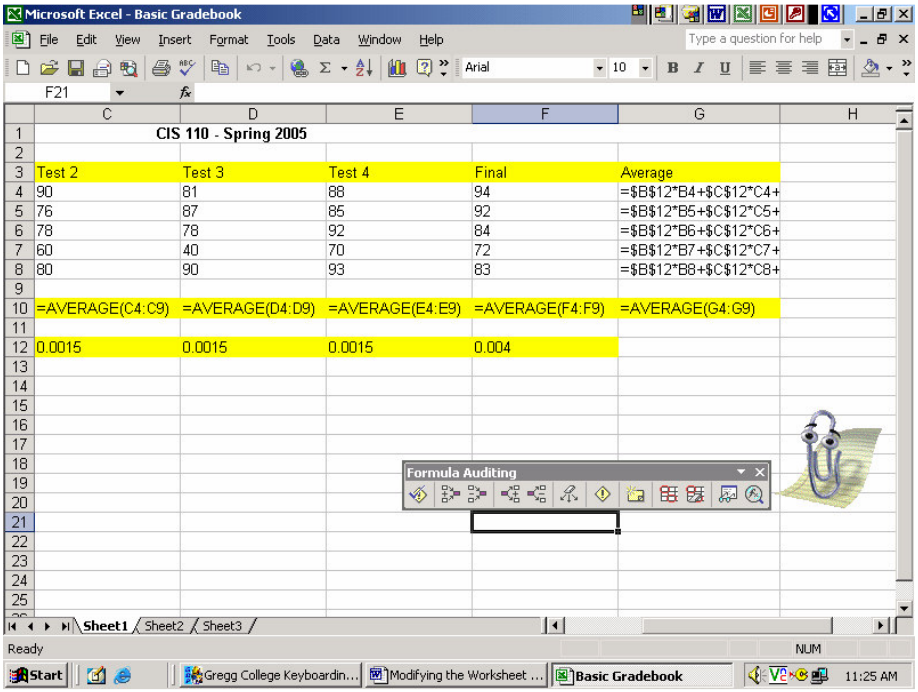
The *Page Setup command* gives you complete control of the printed worksheet.



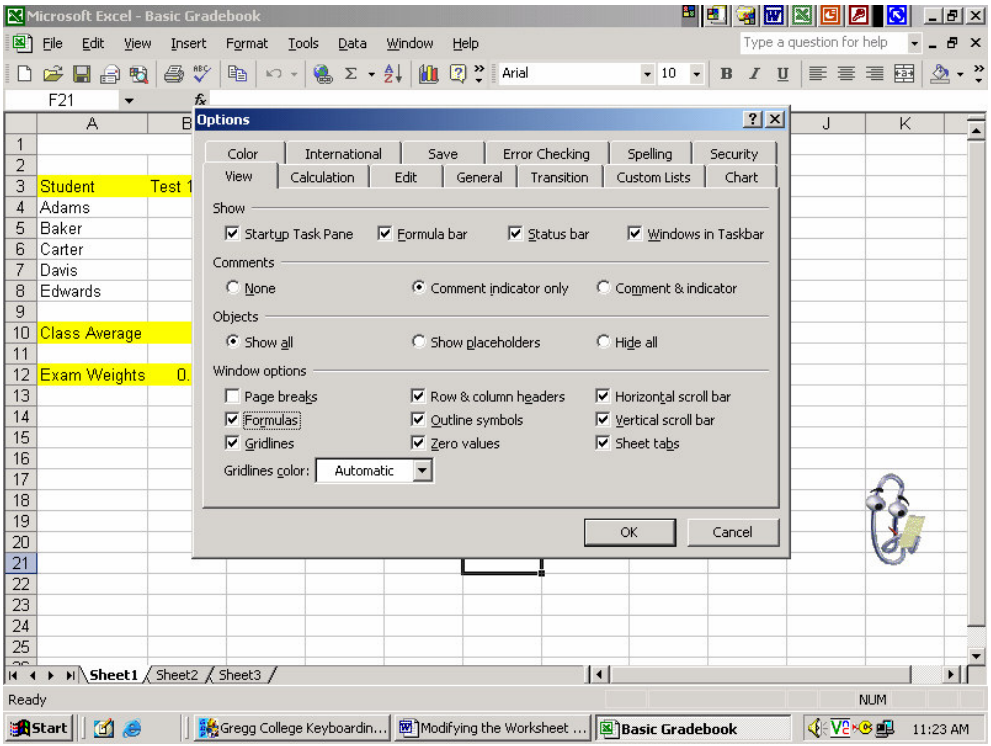


Display Cell Formulas

To quickest way to view formulas on the worksheet is to toggle or switch the view by using the **Ctrl** and `` ` ``keyboard shortcut.



You can also use the *Tools Menu*, click *Options* to display the options dialog box, click the *View* tab and check the box for *Formulas* and *OK*.



Format Cells

The *Format Cells* command controls the formatting for numbers, alignment, fonts, borders, and patterns/colors. Execution of the command produces a tabbed dialog box in which you choose the particular formatting options. All formatting is done within the context of "select-then-do." You select the cells that are to be formatted, execute the *Format Cells* command or click the appropriate button on the Formatting toolbar.