

PMTP Excel Training





Freeze Panes

Freeze Panes allows you to lock your data for viewing

- To Freeze Panes to a specific set of rows and columns, click into the cell below and to the right of where you want to freeze panes

New Window

New Window allows you to work in two tabs within a document at the same time

- Arrange All to view both windows side by side
- Any change made in either window will be saved
- Important to close one window before saving

Find and Replace

- Ctrl+F brings up the Find and Replace Box. Use Find to Navigate to any character, number, or word in the worksheet; use Replace to swap with any number or word. You can replace one or all instances in a worksheet.

Filling in Blanks



Filter

Apply Filters to All Columns

- Filter to Blanks
- CTRL+Shift+Arrows highlights and selects multiple cells
- CTRL+Enter fills all highlighted cells with whatever is typed into the first cell
- CTRL+D fills all highlighted spaces below a cell with the contents of the top cell



Find &
Select

Find & Select > Go to Special > Blanks

- = + Up Arrow Fills blanks with cell from above
 - Useful for very large data sets
 - Important to paste values
- If all blanks should be filled with the same thing, type and hit CTRL+Enter to fill all highlighted cells

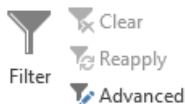
Helpful Tips

- Delete cells when you want the entire cell removed; clear contents to only delete what is within the cell
- Right click to add commonly used functions to the Quick Access Toolbar

Keyboard Shortcuts

CTRL+PgUp	Switches between worksheet tabs, from left-to-right.
CTRL+PgDn	Switches between worksheet tabs, from right-to-left.
CTRL+A	Selects the entire worksheet.
CTRL+B	Applies or removes bold formatting.
CTRL+I	Applies or removes italic formatting.
CTRL+U	Applies or removes underlining.
CTRL+N	Creates a new, blank workbook.
CTRL+C	Copies the selected cells.
CTRL+X	Cuts the selected cells.
CTRL+V	Inserts the contents of the Clipboard at the insertion point and replaces any selection. Available only after you have cut or copied an object, text, or cell contents.
CTRL+ALT+V	Displays the Paste Special dialog box. Available only after you have cut or copied an object, text, or cell contents
CTRL+Z	Uses the Undo command to reverse the last command or to delete the last entry that you typed.
CTRL+ UP Arrow	Takes you to the top of the data within the column. If there are empty cells, takes you to each break in the data.
CTRL+ Down Arrow	Takes you to the bottom of the data within the column. If there are empty cells, takes you to each break in the data.
CTRL+ Left Arrow	Takes you to the left of the data within the row If there are empty cells, takes you to each break in the data.
CTRL+ Right Arrow	Takes you to the right of the data within the row If there are empty cells, takes you to each break in the data.
CTRL+Shift+Arrows	Highlights and selects the data to the top, bottom, left or right.
CTRL+Enter	Fills all highlighted cells with whatever is typed.

Filter



Apply filters on the DATA Ribbon

- Use Clear filters to clear all selections without removing the actual filter buttons

Sort



Sort within a filter to organize data numerically or alphabetically

- For smaller sets of data, use the Sort functions on the Data Ribbon

Format Painter



On the HOME ribbon, Format Painter allows you to copy the format of one or more cells and “paste” into multiple cells

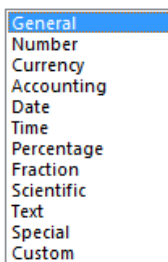
Remove Duplicates



On the DATA ribbon, use Remove Duplicates to remove repeated rows

- Select the columns you want to match to remove duplicates
 - Data must match all the criteria you select to be considered a duplicate
- If you want to only remove duplicates from a specific set of highlighted data, DO NOT “Expand the Selection”

Formatting Cells



Right Click to Format Cells or use the drop down next to Number on the HOME tab

- Currency vs Accounting
 - Currency format displays the currency symbol right next to the first digit; apply easily with CTRL+Shift+\$
 - In accounting format, the currency symbol is left justified and the number is right justified; apply easily with the \$ button under Number on the HOME tab
 - Note: Cannot center a number in accounting format
- Custom formats allow you to format the data any way that you need
 - #” : 1” displays number as a ratio of X:1
 - To display 1,200 as 1.2K use **0.0,”K”**; to display 1,200,000 as 1.2M use **0.0,”M”**

Conditional Formatting



Conditional Formatting can be accessed on the HOME ribbon

- Highlight Cells Rules and Top/Bottom Rules allow you to choose which cells you’d like highlighted and how you would like them formatted
- Data Bars are used to display the relative values of a cell; larger values have longer bars
- Color Scales and Icon Sets can also be used to represent the values in a cell
- Choose New Rule to create a custom formatting rule
- Clear Rules allows you to remove the conditional formatting from specific cells, a worksheet or the entire workbook
- Manage Rules allows you to customize rules and set rule priority








Formatting to Print



On the VIEW Ribbon, use Page Break Preview to determine the view that will be printed

- Click and drag the blue lines to adjust the pages that will be printed
- You can fit more on one page or remove lines you would not like printed

Sum and Count

 COUNT	Count: Counts the number of cells that contain a number	=COUNT(range)
 COUNTA	CountA: Counts the number of cells that are not empty	=COUNTA(range)
 COUNTBLANK	Countblank: Counts the number of empty cells	=COUNTBLANK(range)
 COUNTIF	Countif/Countifs: Counts the number of cells in a specific range that meet the selected criteria	=COUNTIF(range, criteria)
 COUNTIFS		=COUNTIFS(criteria_range1, criteria1, criteria_range2, criteria2...)
 SUMIF	Sumif/Sumifs: Adds the cells specified by a set of criteria	=SUMIF(range, criteria, sum_range)
 SUMIFS		=SUMIFS(sum_range, criteria_range1, criteria1, criteria_range2, criteria2...)

Text to Columns



On the data ribbon, Text to Columns allows you to parse data into multiple cells

- Choose type of delimiter
 - Delimited: characters such as commas or tabs separate fields
 - Fixed Width: fields are aligned in columns with spaces between fields
- Choose delimiters (ex: _ , :)
- Choose destination for parsed data

Concatenate

Concatenate joins a string of text together

- =Concatenate(Text1,Text2,Text3...) or =Text1&Text2&Text3
- Can join a string of cells
- Can also include text or characters denoted by ""
 - Also need to be separated by , or &

Vlookup/Hlookup

Vlookup looks for a value in the leftmost column of a table and returns a value from the same row in a specified column

= vlookup (lookup_value, table_array, col_index_num, range_lookup)

Hlookup looks for a value in the top row of a table and returns a value from the same column in a specified row

= hlookup (lookup_value, table_array, row_index_num, range_lookup)

- **lookup_value**: cell or text you are searching for
- **table_array**: columns or rows where you want to search for lookup_value and return cell contents
- **col_index_num/row_index_num**: number of the column or row where you want to return cell contents from
 - start counting at the first column or row of the table array
- range_lookup: enter **false** for exact match
 - True returns approximate match but is usually not accurate

Simply: = vlookup (what you're searching for, where you are searching for it, what column number you want to return, false to denote an exact match)

Relative vs Absolute References

A relative reference will adjust the cells that are being referenced as the formula is moved

An absolute reference will lock the cell or cells that are being referenced when a formula is moved

- To make a relative reference an absolute reference, use F4 to apply the \$ to the reference to lock it

IF Functions

An IF function will return a specified value if the criteria is true and a specified value if the criteria is false

=if (logical_test, value_if_true, value_if_false)

Simply: =if (Criteria, return this value if true, return this value if false)

Creating the PivotTable

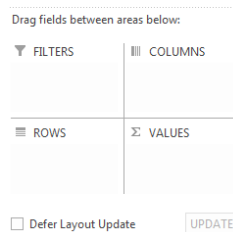


PivotTable

**** All columns of data must have headers in order to create a PivotTable**

- To choose the data selection highlight entire sheet using the arrow in the top left corner
 - Or Highlight the workbook columns that contain your data
 - Or Highlight only the data selection that you need – will need to update the PivotTable selection if you add more rows of data
- Insert > PivotTable

Choosing the Data Fields



Click and drag to place the fields where you want them in a PivotTable

- Filters:** Add the fields you would use to segment the data but not appear in the pivot
 - Filters can be applied to the fields within the table, but you cannot add a field simultaneously as a filter at the top and a field within the table
- Rows and Columns:** Fields chosen will show in the order they were chosen
 - Change the order by moving the fields in the Field List or move the field directly on the PivotTable
- Values:** Used for numerical data and can show the sum, count, average, min, max, etc
 - When more than one value is selected, "Values" will show under columns
- Defer Layout Update:** Check this box to arrange the fields in a PivotTable without updating the chart. Then click UPDATE to make changes.

Value Field Settings



Under "Values" in the Field List, use the drop-down menu to select Value Field Settings

- Can also right click on the columns and select Value Field Settings
- Summarize Values By:** choose method for aggregating data
 - If there are NO blank fields in the original data, the values will default to SUM; otherwise they will default to COUNT
- Show Values As:** can choose to show data as a % of the chosen parameters
- Number Format:** change the number format for the values in each column

Design Ribbon



**** Design and Analyze Ribbons only appear when the PivotTable is selected**

- Subtotals and Grand Totals:** Choose if and how these fields display on the table
- Report Layout** allows you to show data in compact, outline or tabular form
 - Can also choose to repeat all item labels or leave empty spaces
- PivotTable Style Options and PivotTable Styles** allow you to customize the look of your PivotTable by changing colors, fonts, borders, etc

Analyze Ribbon



Refresh

Use Refresh on the "Data" or "Analyze" ribbons to refresh the pivot when data has changed



Change Data Source

Change Data Source allows you to include additional data or change the source completely



Ungroup

Group multiple selections together and rename

Calculated Fields

Fields, Items & Sets > Calculated Field

- Enter the name of the new field (cannot match existing field)
- Enter the calculation based on existing fields

**** The calculated fields will change based on all filters and selections to the pivot**

- When error values show in the Pivot, right click and choose "PivotTable Options"
 - Click the box next to "For Error Values Show" and choose what you want to show
 - Ex: 0 or blank cell

Naming a Range of Cells



Highlight the range of data that you want named

- Name the list in the Name Box in the top left corner of the worksheet
- Named ranges can be used to create drop-down validations or simplify formulas



FORMULAS > Name Manager

- Create, Edit and Delete a named range of cells under Name Manager

Instead of referencing a range of cells in formulas, you can use the named range

- Reference the name in your formula; no need to use quotes
- Excel will highlight the named range in **Blue** if it is recognized

Creating Dropdown Menus from a List



**** Important that your data is sorted in the order you want it to appear in the drop-down list**

- Name the range of data using the instructions from above
- Highlight the cells where you want to create the dropdown list
 - DATA > Data Validation
 - Under Allow, choose List
 - Under Source, type =ListName with ListName the name of the data range (Ex. Source: =Rep)

Creating and Formatting Charts



Highlight the data in the chart and on the INSERT ribbon choose the type of Chart you would like created

- Clicking into a chart will bring up the DESIGN and FORMAT ribbons
- Swap the Rows and Columns by choosing Switch Row/Column on the DESIGN ribbon
- Formatting the Chart
 - Right click on any element of the chart to open the Format Menu
 - When you are in the Format Menu, clicking on any other element of the chart will allow you to format that element



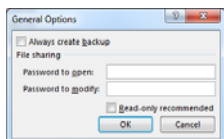
- On the DESIGN ribbon, use Add Chart Element to format components of the charts
 - Update the placement of the Axis, Axis titles, and Chart Title
 - Add or change the placement of Data Labels or the Legend
 - Add or remove a trendline

Secondary Axis on a Chart



- To put a data set on another axis, highlight the data and Under Series Options, choose Secondary Axis
 - Can also change the chart type to "Clustered Column – Line on Secondary Axis" or choose this option from the beginning when creating your chart

Hiding and Locking Worksheets



Right click on the Tab Name to Hide Worksheets that you don't need visible

- Unhide will show you all the tabs that are hidden so you can show them again
- To password protect or just lock a Worksheet, on the REVIEW ribbon choose Protect Sheet
- This option will change to Unprotect Sheet if the selected sheet is protected
- To password protect a Workbook from editing, when using Save As, select Tools > General Options and type a password to open or modify a file
- Excel cannot retrieve passwords so important to choose a password you will remember