READING DATA INTO EXCEL

Excel has its own terminology for its components, where data can be read.

Cell. A user enters data into a cell, which is the intersection of a column and row.

- **Cell reference.** This is the set of coordinates where a cell is located. Rows are horizontal and numbered whereas columns are vertical and assigned a letter.
- **Active cell.** This is the currently selected cell, outlined by a green box.
- **Workbook.** This is an Excel file that contains one or more worksheets.
- **Worksheet.** These are the different documents nested within a Workbook.
- **Worksheet tab.** These are the tabs at the bottom left of the spreadsheet.
- **Column and row headings.** These are the numbered and lettered cells located just outside of the columns and rows. Selecting a header highlights the entire row or column.
- **Formula.** Formulas are mathematical equations, cell references or functions that can be placed inside a cell to produce a value. Formulas must start with an equal "=" sign.
- **Formula bar.** This is the long input bar that is used to enter values or formulas in cells. It is located at the top of the worksheet, next to the "fx" label.
- **Address bar.** This bar located to the left of the formula bar shows the number and letter coordinates of an active cell.
- **Filter.** These are rules a user can employ to select what rows in a worksheet to display. This option is located on the top right of the home bar under "Sort & Filter." An auto filter option can be selected to show rows that match specific values.

- **AutoFill.** This feature enables users to copy data to more than one cell automatically. With two or more cells in a series, a user can select both cells and drag the bottom right corner down to autofill the rest of the cells.
- **AutoSum.** This feature enables users to add multiple values. Users can select the cells they want to add and press the Alt and Equal keys. There is also a button to enable this feature on the top right of the home page, above "Fill" and to the left of "Sort & Filter."
- **PivotTable.** This data summarization tool sorts and calculates data automatically. This is located under the insert tab on the far left.
- **PivotChart.** This chart acts as a visual aid to the PivotTable, providing graph representations of the data. It is located under the middle of the insert page, next to maps.
- **Source data.** This is the information that is used to create a PivotTable.

This image shows key features of Excel.

Advanced Excel capabilities

More advanced tools in Excel include the following:

- **TREND function.** This tool is used to calculate linear trend lines through a set of Y or X values. It can be used for time series trend analysis or projecting future trends. Trendlines can be used on charts.
- **VLOOKUP.** The Vertical Lookup, or VLOOKUP function, can be used to search for values in a larger data set and pull that data into a new table. VLOOKUP is a cell input command that looks like =VLOOKUP(). The parentheses include the data the user wants to look up, where to look for it, the column number with the value to return; or optionally, the user can specify an Approximate or Exact match indicated by True or False.
- **Table Array.** This is a combination of two or more tables with data and values linked and related to one another. This is part of VLOOKUP.
- **Col_index_num.** Another value when creating a table array that specifies the column from where data is being pulled.

- **Range_lookup.** This value in VLOOKUP provides information closest to what a user wants to find when nothing matches other variables. This is represented by a true or false label. False gives the exact value a user is looking for and True gives results from a variable data range.
- **MAX and MIN functions.** These functions provide the maximum and minimum values from selected data sets. MAX is used to find the maximum value in a function tab and MIN is used to find the minimum value.
- **AND function.** This function has more than one criteria set when searching variables. If a variable matches the criteria, the value will be returned as true; if not, it will be returned as false. The input for the function should look like this: =AND (logical1, [logical2], ...).
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