



Microsoft Excel Tutorial

I. GETTING STARTED

Microsoft Excel is one of the most popular spreadsheet applications that helps you manage data, create visually persuasive charts, and thought-provoking graphs. Excel is supported by both Mac and PC platforms. Microsoft Excel can also be used to balance a checkbook, create an expense report, build formulas, and edit them.

2. CREATING A NEW DOCUMENT

Opening Microsoft Excel

To begin Microsoft Excel, Go to **Applications > Microsoft Excel** (Figure 1). When opened a Dialog box on the screen, showing you a few templates and blank excel sheets (Figure 2.) if this does not happen click **File > New Workbook**.

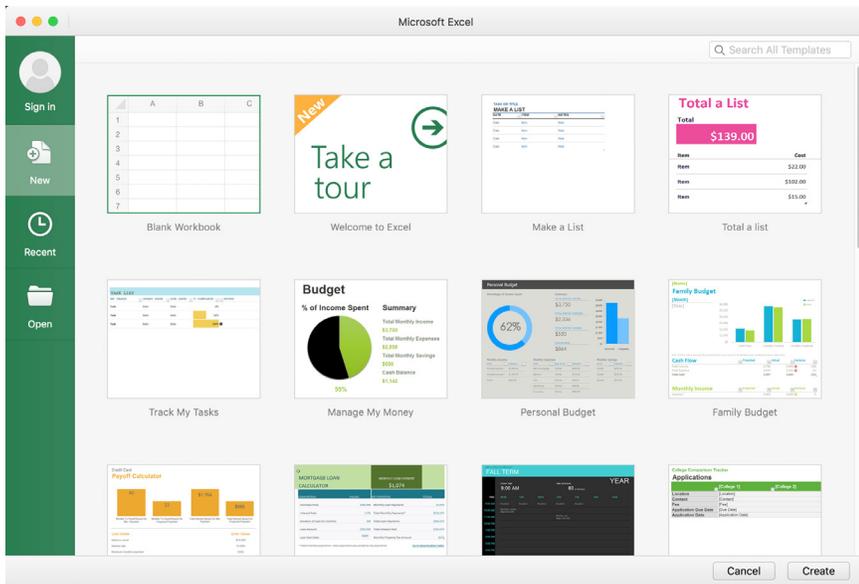


Figure 2. Opening a new workbook

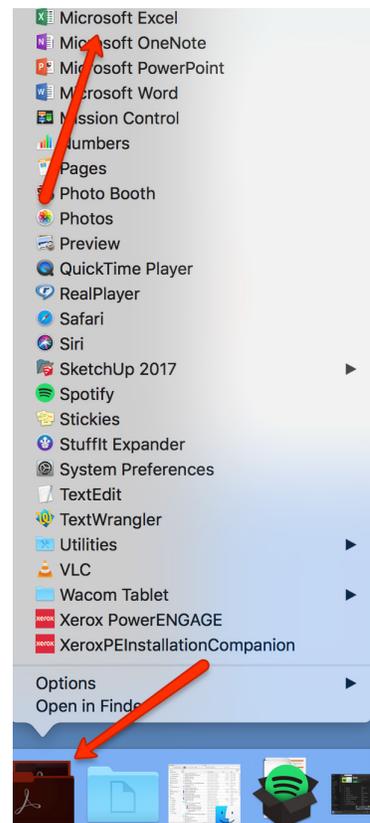


Figure 1. Navigate to Microsoft Excel

3. SAVING YOUR DOCUMENT

Computers crash and documents are lost all the time, so it is best to save often.

Saving Initially

Before you begin you should save your document. To do this, go to **File > Save As**. Microsoft Excel will open a dialog box (Figure 3) where you can specify the new file's name, location of where you want it saved, and format of the document. Once you have specified a name, place, and format for your new file, press the **Save** button.

Note: Specifying your file format will allow you to open your document on a PC as well as a Mac. To do this you use the drop down menu next to the **Format** option. Also, when you are specifying a file extension (i.e. .doc) make sure you know what you need to use.

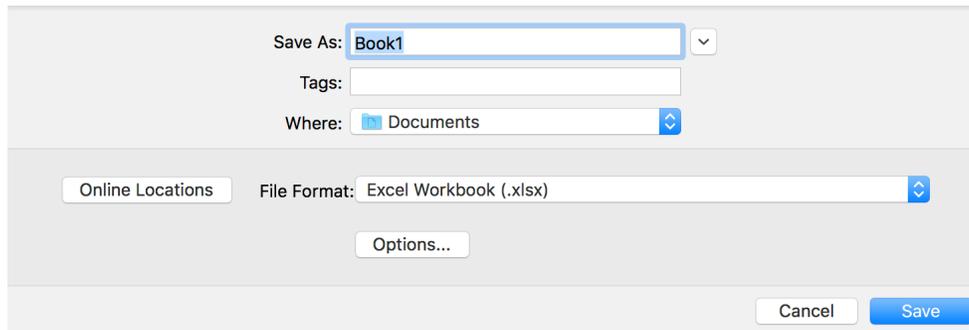


Figure 3. Saving dialog box.

Saving Later

After you have initially saved your blank document under a new name, you can begin your project. However, you will still want to periodically save your work as insurance against a computer freeze or a power outage. To save, click **File > Save** or **Command S** for a shortcut on a Mac.

4. RIBBON

Microsoft Excel uses a ribbon toolbar to allow you to modify your document. Both Mac and Pc have the same ribbon toolbar. If you do not see these toolbars, or to open up other toolbars, go to **View > Ribbon** and place a checkmark by the toolbar you wish to open. Excel will also allow you to customize your toolbar by going to **View > Customize Views**.



On Mac, there is grey toolbar (figure above) located at the top of the green ribbon that contains any extra functions that is not in the main Excel ribbon. On Pc, excel has all of its functions in the main ribbon.

The **Ribbon:** (Figure 5). This toolbar contains tabs of **Home**, **Insert**, **Page Layout**, **Formulas**, **Data**, **Review**, and **View**. Each tab serves a different purpose in customizing your document or having access to specific tools to help aid in whatever you are working on.



Figure 5. Standard toolbar.

The **Formatting Palette**: (Figure 6) is on the **Home** tab of the Ribbon. This palette contains icons for common formatting actions, such as **Font Style**, **Font Size**, **Bold**, **Italic**, **Underline**, **Alignment**, **Borders**, **Shading**, **Orientation**, **Gridlines**, and **Margins**.

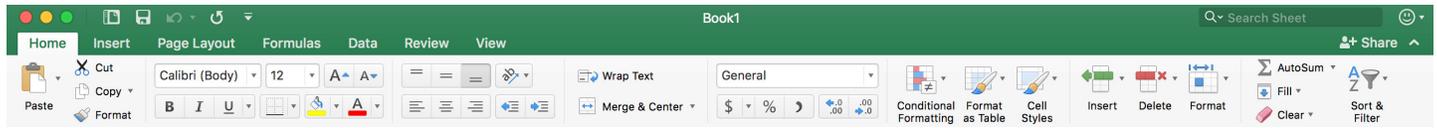


Figure 6. Formatting Palette.

5. FORMATTING

Formatting the Spreadsheet

The default page view for **Microsoft Excel** spreadsheets display all gridlines and open up in portrait orientation. To change the gridlines look at the fifth tab on the **Formatting Palette**, under **Sheet** uncheck the view box. This will eliminate any gridlines from the spreadsheet. To change the page orientation look at the fifth tab on the **Formatting Palette**, under **Orientation** and check **Landscape** (Figure 7).

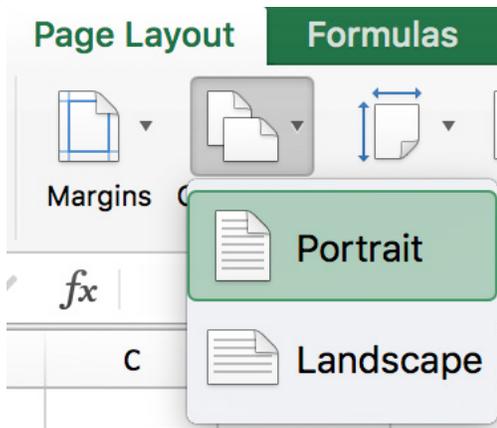


Figure 7. Changing Page Orientation

Working with Cells

Cells are an important part of any project being used in **Microsoft Excel**. Cells hold all of the data that is being used to create the spreadsheet or workbook. To enter data into a cell you simply click once inside of the desired cell, a green border will appear around the cell (Figure 9). This border indicates that it is a selected cell. You may then begin typing in the data for that cell.

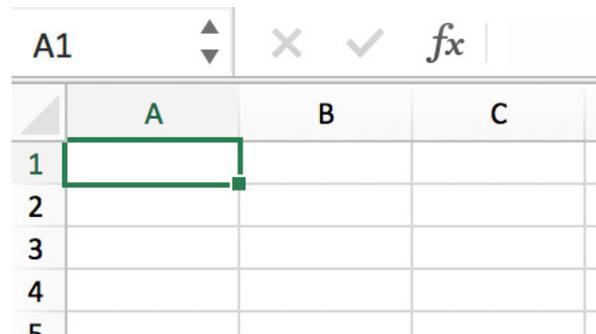


Figure 9. Entering Data.

Changing an Entry Within a Cell

You may change an entry within a cell two different ways:

- Click the cell one time and begin typing. The new information will replace any information that was previously entered.
- Double click the cell and a cursor will appear inside. This allows you to edit certain pieces of information within the cells instead of replacing all of the data.

Cut, Copy, and Paste

You can use the **Cut**, **Copy** and **Paste** features of Excel to change the data within your spreadsheet, to move data from other spreadsheets into new spreadsheets, and to save yourself the time of re-entering information in a spreadsheet. **Cut** will actually remove the selection from the original location and allow it to be placed somewhere else. **Copy** allows you to leave the original selection where it is and insert a copy elsewhere. **Paste** is used to insert data that has been cut or copied.

To Cut or Copy:

Highlight the data or text by selecting the cells that they are held within.

Go to **Edit > Copy (Command-X)** or **Edit > Cut (Command-C)**.

Click the location where the information should be placed.

Go to **Edit > Paste (Command-V)**.

Formatting Cells

There are various different options that can be changed to format the spreadsheets cells differently. When changing the format within cells you must select the cells that you wish to format.

To get to the **Format Cells** dialog box select the cells you wish to change then go to **Format > Cells**. A box will appear on the screen with six different tab options (Figure 10). Explanations of the basic options in the format dialog box are bulleted below.

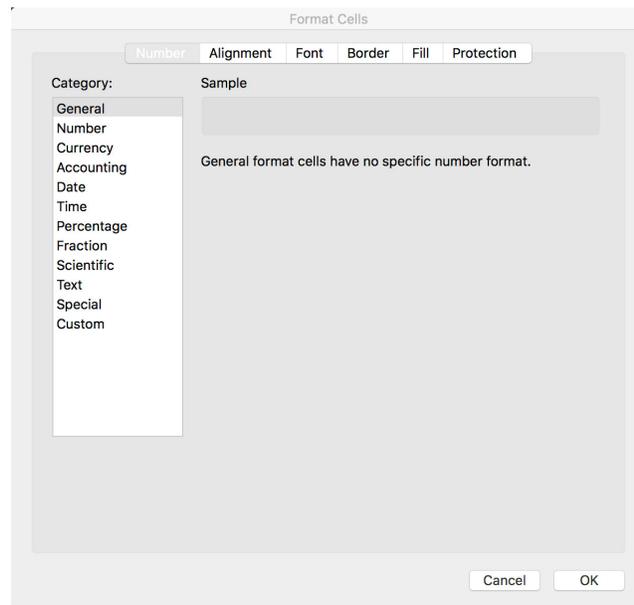


Figure 10

Number: Allows you to change the measurement in which your data is used. (If your data is concerned with money the number that you would use is currency)

Alignment: This allows you to change the horizontal and vertical alignment of your text within each cell. You can also change the orientation of the text within the cells and the control of the text within the cells as well.

Font: Gives the option to change the size, style, color, and effects.

Border: Gives the option to change the design of the border around or through the cells.

Formatting Rows and Columns

When formatting rows and columns you can change the height, choose for your information to autofit to the cells, hide information within a row or column, un-hide the information. To format a row or column go to **Format > Row** (or **Column**), or **Home** tab then **format** button for PC, then choose which option you are going to use (Figure 11). The cell or cells that are going to be formatted need to be selected before doing this.

Adding Rows and Columns

When adding a row or column you are inserting a blank row or column next to your already entered data. Before you can add a **Row** you are going to have to select the row that you wish for your new row to be placed in its place. (Rows are on the left hand side of the spreadsheet) once the row is selected it is going to highlight the entire row that you chose. To insert the row you have to go to **Insert > Row** (Figure 12). The row will automatically be placed on the spreadsheet and any data that was selected in the original row will be moved down below the new row. Another way is using the **Insert** in the **Formating Pallete**.

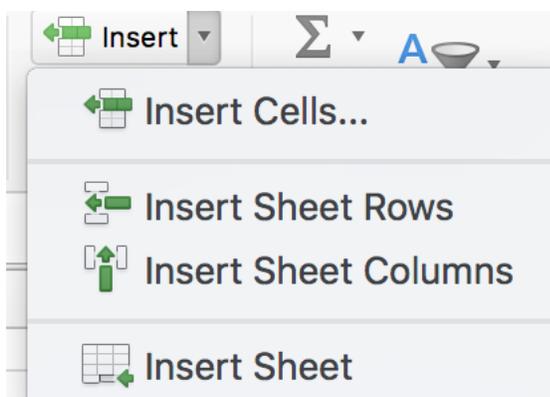


Figure 12

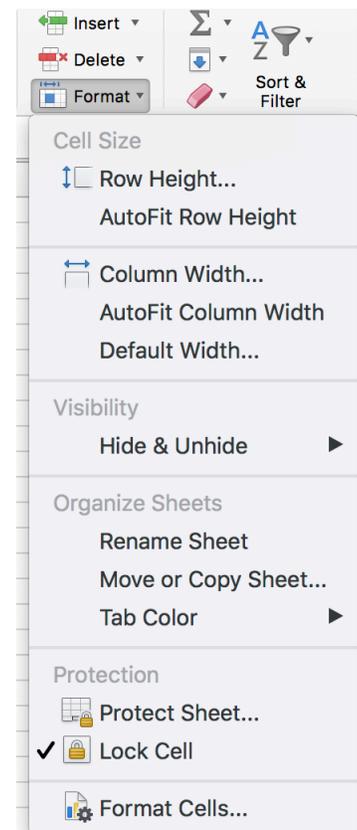


Figure 11

Before you can add a **Column** you are going to have to select a column on the spreadsheet that is located in the area that you want to enter the new column. (Columns are on the top part of the spreadsheet.) Once the column is selected it is going to highlight the entire row that you chose. To insert a column you have to go to **Insert > Column** (Figure 12). The column will automatically be placed on the spreadsheet and any data to the right of the new column will be moved more to the right.

Working with Charts

Charts are an important part to being able to create a visual for spreadsheet data. In order to create a chart within Excel the data that is going to be used for it needs to be entered already into the spreadsheet document. Once the data is entered, the cells that are going to be used for the chart need to be highlighted so that the software knows what to include. Next, click on the **Charts Tab** that is located right above the spreadsheet (Figure 14). Once it is clicked the tab will highlight green and all of the various charts within **Excel** will appear.



Figure 14

You may choose the chart that is desired by clicking the icons that are displayed. Once the icon is chosen the chart will appear as a small graphic within the spreadsheet you are working on. To move the chart to a page of its own select the border of the chart and **Ctrl > Click**. This will bring up a drop down menu, navigate to the option that says **Move Chart**. This will bring up a dialog box that says **Chart Location**.

From here you will need to select the circle next to **As A New Sheet** and name the sheet that will hold your chart. The chart will pop up larger in a separate sheet but in the same workbook as your entered data.

Chart Design

There are various different features that you can change to make your chart more appealing. To be able to make these changes you will need to have the chart selected or view the chart page that is within your workbook. Once you have done that the **Formatting Palette** will change to show features that were not there before (Figure 16). These features include:

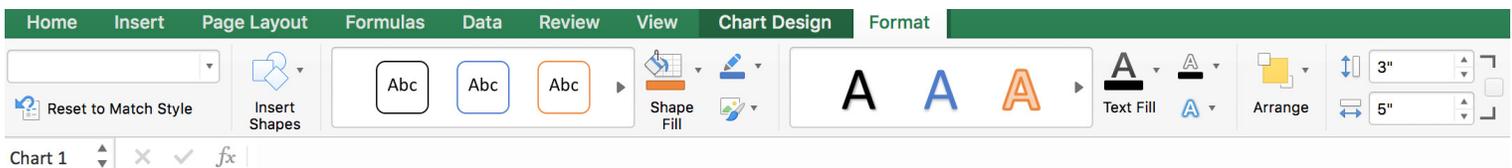


Figure 16

Chart Options:

Titles: Here you can change the Chart Title, Vertical Axis Title, and Horizontal Axis Title by clicking the drop down menu and selecting which one you will change and entering the name into the empty box below.

Axes: You may change which axes are shown on the charts graph and which are not.

Gridlines: This feature allows you to change which gridlines (major and minor) are shown on the charts graph and which are not.

Chart Style:

Here you are able to change the color of the bars that are within your chart.

Quick Styles and Effects:

Here you can add gradients, fill, drop shadows, and reflections to your chart depending on what is desired.

6. INSERTING SMART ART GRAPHICS

Graphics

Smart Art Graphics are pre-made graphics that can be inserted into a spreadsheet or workbook to display relationships, cycles, diagrams, pyramids, and lists. These graphics do not require or use pre-entered data from your spreadsheets. All information that is going to be entered into them will be entered by hand. To insert a **Smart Art Graphic** into your document you will need to click the **Insert** tab, then the **Smart Art (and type of)**. Once clicked the tab will appear on your top toolbar in a highlighted green and all of the different graphic options will appear (Figure 17).

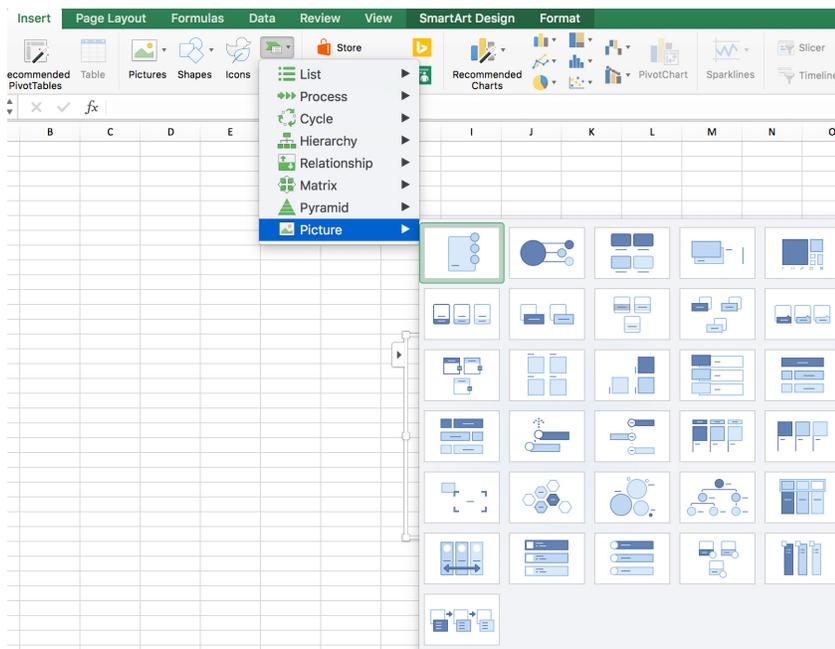


Figure 17

To be able to use a graphic you can click on the icon and it will appear on the spreadsheet you are currently working on. A small dialog box will also appear with the graphic that gives you an option to change the data that will show up inside of the graphic (Figure 18)

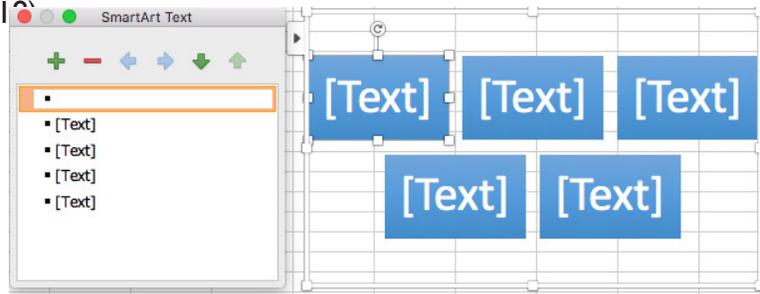


Figure 18

If you do not enter data in this dialog box then the default text will remain in the graphic. If you accidentally close out the dialog box all you need to do is click the button on the left hand side of the graphic to bring it back up on the screen (Figure 19).



Figure 19

To insert **Images**:

Go to **Insert > Picture > Picture from File**, and then select the desired picture from the location that it is stored (Figure 20). The picture will be inserted directly onto your document, where you can change the size of it as desired.

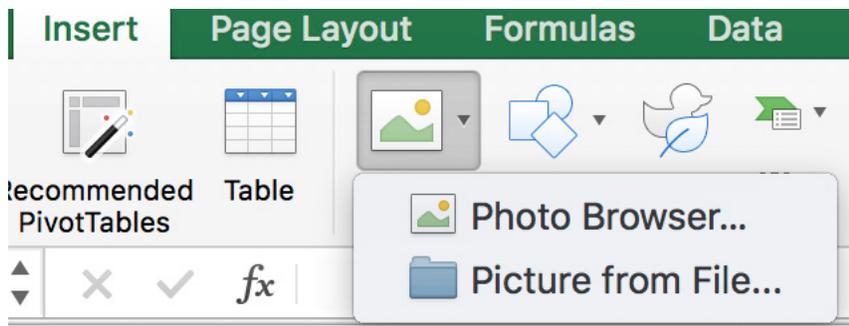


Figure 20

When creating a function in Excel you must first have the data that you wish to perform the function with selected.

- Select the cell that you wish for the calculation to be entered in (i.e.: if I want to know the sum of

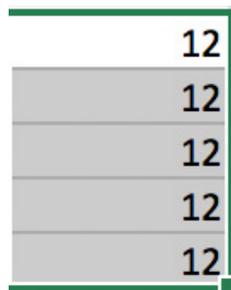


Figure 21. Choosing calculation cell

- Once you have done this you will need to select icon  located on the **Formatting Palette**.
- The **Toolbar** will change names to **Formula Builder**.
- A list of **Most Recently Used** formulas will appear. To choose one of the formulas simply double-click it from the list.
- This will display the calculation in two places on your screen. The first is on your spreadsheet in the cell that you selected. (Figure 22)

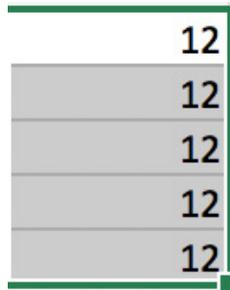


Figure 22. First calculation display

It will also show up under the **Most Recently Used Formulas** list. (Figure 23)

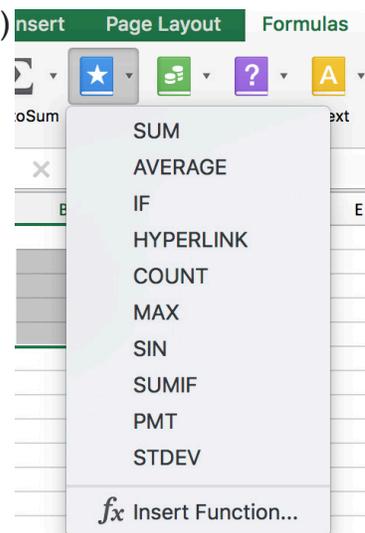


Figure 23. Second calculation display

In this screen it lists the cells that are being calculated, the values within the cells, and the end result.

- To accept that calculation you can press **Enter** and the result will show up in the selected cell.

7. PRINTING

Printing

To print your document, go to **File > Print**, select your desired settings, and then click **Print**. It is also possible to print by using the **Print** icon on the Standard toolbar, however this does not bring up the **Print** dialogue box that allows you to change your printing options, so it is advisable to use the other method.

To be able to change the orientation of your page for printing you can click on the **Page Setup** button under the option to **Print** (Figure 24).

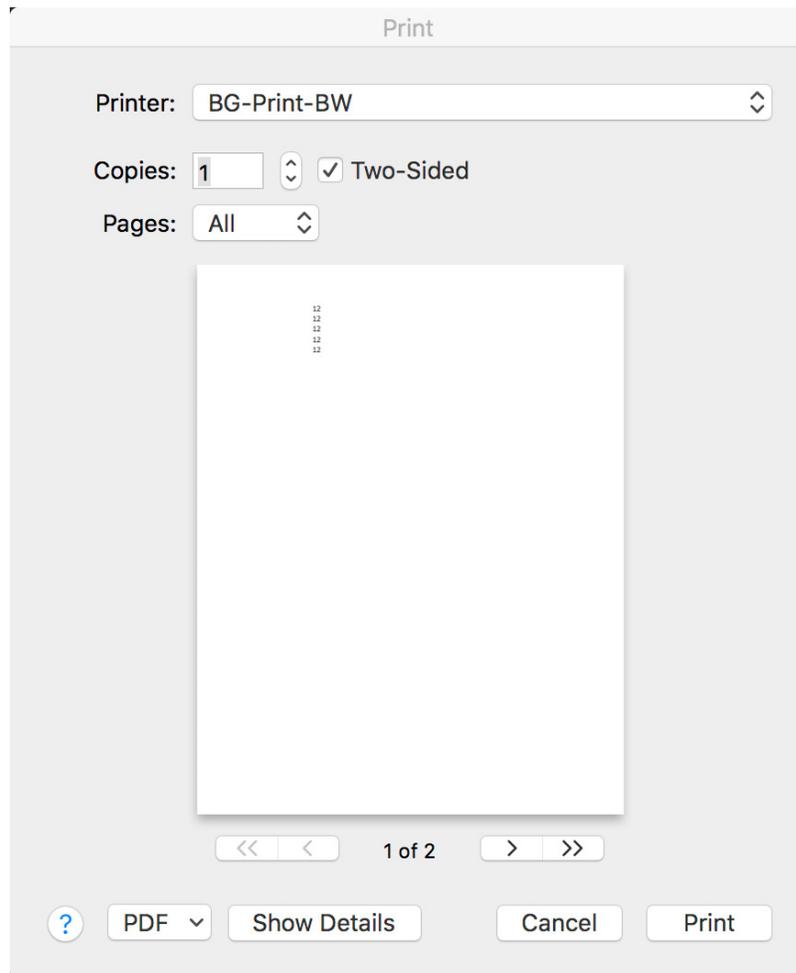


Figure 24. Page Setup button and printing

8. OTHER HELPFUL FUNCTIONS

Undo and Redo

In order to undo an action, go to **Edit > Undo**. To redo an action, go to **Edit > Redo**. It is important to note that not all actions are undoable, thus it is important to save before you make any major changes in your document so you can revert back to your saved document.

Quitting

Before you quit, it's a good idea to save your document one final time. Then, on a Mac, go to **Excel > Quit (Command-Q)**. This is better than just closing the window, as it insures your document quits correctly.