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## FUNCTIONS

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For this exercise, you will be use the High Tech Stock Club workbook. This workbook is available in the files that were downloaded from the Excel 2016 Web Page.

### FUNCTION EXPLANATION

- ✦ Functions take a value or values, perform an operation, such as SUM or AVERAGE, and return a value or values.
- ✦ Each function begins with an equals sign.
- ✦ Arguments are included in parentheses. An example of a function is **=AVERAGE(D3:D7)**. In this function:
  - ★ AVERAGE is the function name.
  - ★ D3:D7 is the argument; the list of values that are being averaged.
- ✦ Each function must have a function name and an argument.

### METHODS OF ENTERING FUNCTIONS

- ✦ A function may be entered using the keyboard or mouse, the Insert Function Dialog Box, the Insert Function button or using the options under the Formulas Tab Function Library Group.

#### Keyboard or Mouse

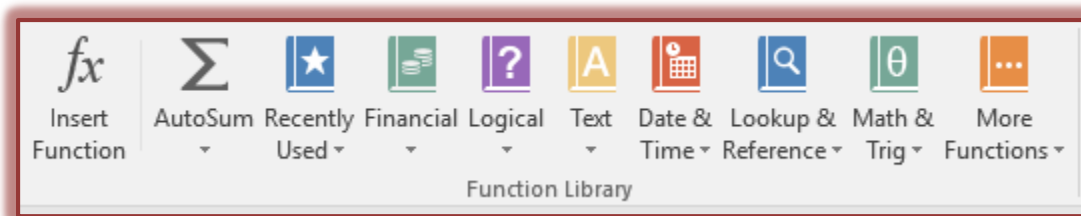
- ✦ When using this method of entering a function, you would key in the equals sign (=), input the function, and input the beginning parentheses.
- ✦ Select the cells with the mouse for which the function is being performed.
- ✦ The function will appear in the **Formula Bar**.



- ✦ Click the **Enter** button on the ribbon or press the **Enter** button on the keyboard.
- ✦ The results of the function will appear in the cell where the function was entered.

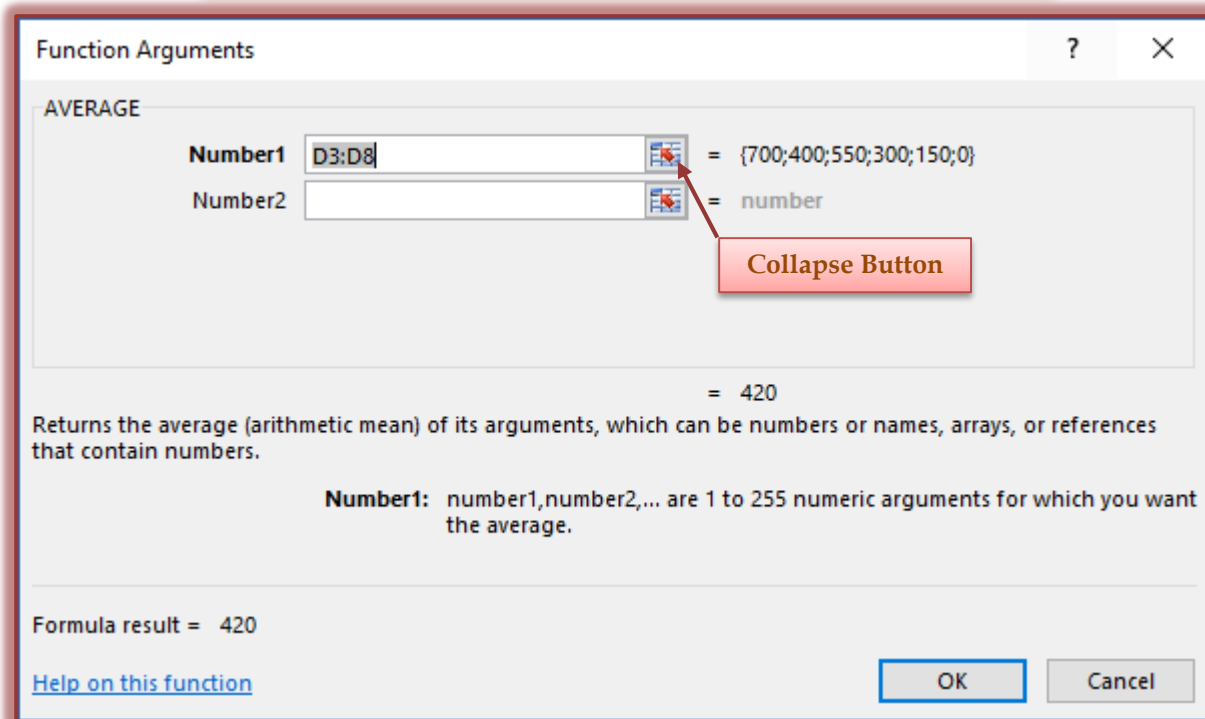
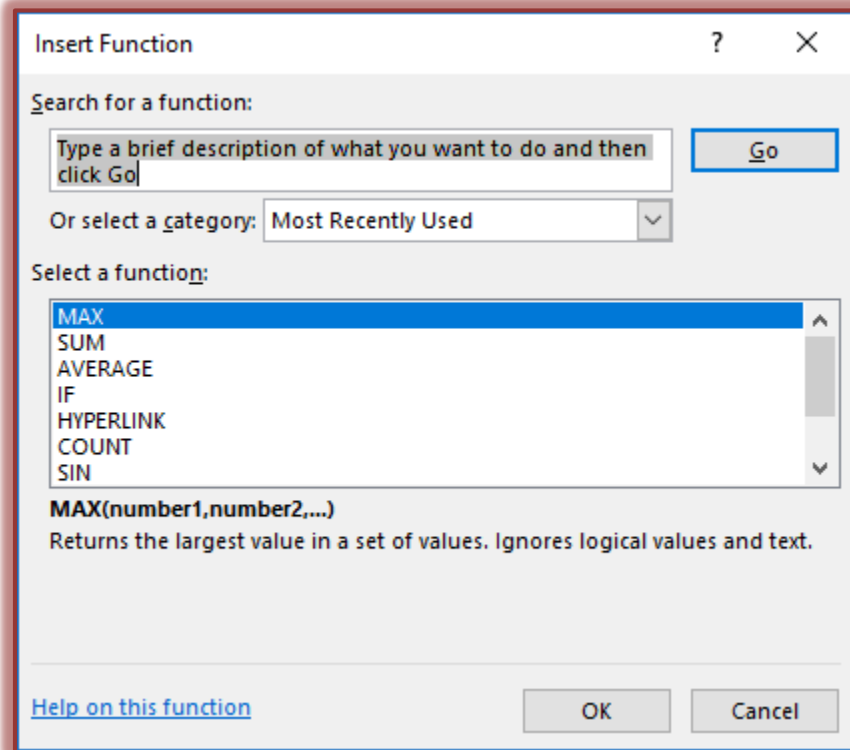
#### Insert Function Dialog Box

- ✦ Click the **Formulas Tab**.
- ✦ In the **Functions Library Group**, click the **Insert Function** button.



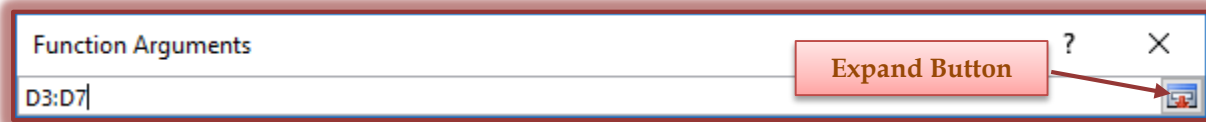
- ✦ The **Insert Function** dialog box will display (see illustration on next page).
- ✦ In the dialog box, select the **Category** for the function such as **Statistical**.
- ✦ Select the **type of function** that is to be used, such as **Sum** or **Average**.
- ✦ Click the **OK** button.
- ✦ The **Function Arguments** dialog box will appear (see illustration on next page).
- ✦ In the **Number 1** area do one of the following:
  - ★ Input the cells on which the calculations are to be performed.
  - ✦ The format is **D3:D7**.

- ✦ This will perform the calculation on the cells from D3 through D7.



- ✦ Click the **Red** arrow at the end of the **Number 1** box.
- ✦ This is known as the **Collapse** button.
- ✦ The **Function Arguments** box will collapse into one line.
- ✦ With the mouse, select the cells for which the calculations are being performed.
- ✦ The information should appear in the box. An example as **D3:D7**.

- ✦ Click the **Expand** button which is the same as the **Collapse** button.



- ✦ Click the **OK** button to insert the function into the worksheet.

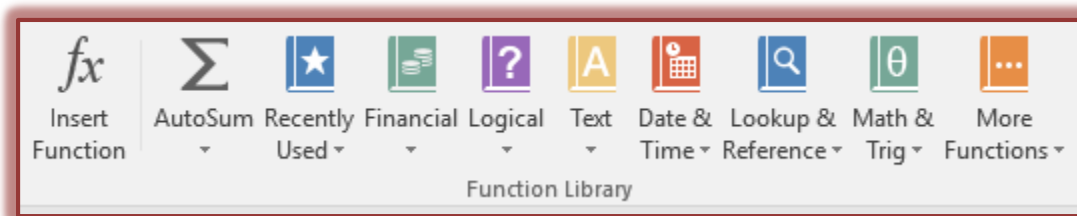
### Insert Function Button

- ✦ To enter a function using this method, click the **Insert Function** button on the **Formula Bar**.
- ✦ The **Insert Function** dialog box will appear.
- ✦ Follow the same steps as described under **Insert Function Dialog Box** to enter the function.



### Using the Formulas Tab Functions Group

- ✦ Click the **Formulas Tab**.
- ✦ In the **Functions Library Group**, click one of the function categories.



- ✦ When each of the items is clicked, a list of functions within that category will be displayed.
- ✦ An explanation of each of the formula groups is provided in the **Excel Formulas Tab** document which is available on the **Excel 2016** link in the **Training Web Site**.
- ✦ The most commonly used functions are:
  - ★ **SUM** - This function returns the total of the selected range of cells.
  - ★ **AVERAGE** - To determine the average of the selected range of cells, use this function.
  - ★ **MAX** - To determine the highest number of the selected range of cells, use this function.
  - ★ **MIN** - This function will return the lowest number in the selected range of cells.