# Microsoft Excel: Formulas \& Functions 

## Handouts available at glensidepld.org/technology

## Create a Formula



## Functions

Functions are preprogrammed formulas in Excel to make calculations easier.

## AutoSum

AutoSum is a function used to add together values in a range of cells.


## If Statement

An IF statement allows you to return different values in your cell depending on IF conditions are met.


## Named Ranges

You can use Named Ranges in Excel to shorten functions, easily reference a range of cells, or even just for quick navigation.

## Create a Named Range



Use a Named Range

1. Use the name of a range in a function instead of the cell addresses themselves. For example: =sum(price)
2. Use the dropdown arrow in the name box to quickly move to relevant data in your workbook.


## Math Functions

| Name | Sample Formula | What It Does |  | Example |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AutoSum | =SUM(A1:A5) | Add all the numbers in a range of cells. |  | Determine the total value of the inventory I have in my store. |  |
| Average | $\begin{aligned} & =A V E R A G E \\ & \text { (A1:C5) } \end{aligned}$ | Find the average of all the numbers in a range of cells. |  | Determine the average salary employees in a division of my company make so I can assess pay increases. |  |
| Maximum | =MAX(E:E) | Find the largest number in a range of cells. |  | Determine the highest salary of any of the employees in my division. |  |
| Logical Functions |  |  |  |  |  |
| Name | Sample Formula |  | What It Does |  | Example |
| If | =IF(G6>15,"Advertise"," ") |  | Use an if function if you need to return different results based on the outcome of your data. |  | I need to have a visual notice whenever I have any inventory in my store for more than 60 days. |
| Count | =COUNT(B:B) |  | Count checks every cell to see if there is a number in it, then returns the number of cells that do. |  | Determine the number of events I organized for my company where at least one person showed up. |
| Sumlf | $\begin{aligned} & =\text { SUMIF(A1:A35, ">65", } \\ & \text { B1:B35) } \end{aligned}$ |  | Add numbers from a list as long as they meet a criteria you set in the formula. |  | I want to know the total number of students in my class over the age of 65 . |
| Countlf | =COUNTIF(A:A, 16) |  | Counts every cell that meets a criteria you set in the formula. |  | I want to know the number of times I have all the seats filled in my classroom. |

## Room for Notes:

