



## Creating Accessible Math Documents – Microsoft Word

When it comes to mathematics, many accessibility issues arise simply due to the nature of the subject itself; math combines characters and symbols from other languages in formats that aren't seen in other subjects. As a result, great care needs to be taken when adding math equations to a document. The steps below will demonstrate how to write equations that can be read by screen readers using Microsoft Word's Equation Editor.

### Guidelines for Accessible Math Documents:

1. Use the equation editor to write all equations in Microsoft Word
2. Be sure all your equations are presented as 'professional' (This should be the default option)
3. Be sure to distribute the whole document as you will not be able to properly cut and paste the equations.

### Inserting Preset Equations:

Microsoft has several standard equations that you can insert and edit to fit your needs.

1. Click **Insert; Equation** will be at the far right of the screen
2. Click the arrow directly below **Equation**; this will open a drop-down menu
3. Choose a preset equation; a box with your equation will appear on the screen.
4. Click the box to open the editor
5. Click elements in the equation to edit/replace them

### Creating Unique Equations:

If Microsoft does not have the equation you need, you can create your own.

1. Click **Insert; Equation** will be at the far right of the screen
2. Click **Equation**; this will add a blank equation box
3. Click the box and use the tools at the top of your screen to create your equation
  - a. Note: anything typed in this box will register as a math function (i.e. 'x' will be labeled as a multiplication symbol)
4. Click the arrow in the lower-right corner of the equation box; this will open a drop-down menu
5. Click Save as New Equation to save this equation for further use.
  - a. Note: If you have an equation you use frequently, write it with variables and save it to use as a template

### Checking for Accessibility:

When you are finished adding your equations, you can check your equations' accessibility.

1. Click View
2. Click Learning Tools
3. Highlight the equation you would like to check.
4. Click Read Aloud and listen to the equation

### Correcting Accessibility:

If you hear a portion of your equation read in an unexpected way, consider another way to write that element:

1. For example, binomial coefficients  $\binom{n}{k}$  are read as 'n atop k' instead of 'n choose k'
2. You can rewrite it in a separate equation editor as  $\frac{n!}{k!(n-k)!}$

Congratulations, you are now able to create accessible math equations.

### Additional Resources:

1. Contact the Instructional Accessibility Group at [Instructional.Accessibility@msudenver.edu](mailto:Instructional.Accessibility@msudenver.edu)