

For typesetting math in text and in display, Allen Press's primary resource is *Mathematics into Type, Updated Edition*, by Ellen Swanson, 1999. ©American Mathematical Society, ISBN 0-8218-1961-5, www.ams.org.

Guidelines for Math

- Set display equations in MathType. Each display equation should be in its own MathType object. Each MathType object should contain the entire equation, including final punctuation. The equation number should be set as Microsoft Word regular text, outside the MathType object, separated by either a tab or a space.
- Set in-text (inline) math in Microsoft Word regular text. Exception: If in-text (inline) math has elements that should be stacked or have rules, circumflexes, arrows, or other accents spanning over more than one character, set in MathType as "Inline Equation."
- If any characters cannot be found in Word's Symbol palette ("(normal text)," "Times New Roman," or "Symbol"), please set in MathType.
- No display equations are allowed in figure captions, table titles, or table footnotes. If a display equation occurs in a text footnote, it is best to recast it as inline math. There are a few journals with lengthy footnotes with style exceptions to this rule.
- No numbered equations are allowed in table footnotes.
- Display and/or numbered equations ARE allowed in table body, but must be "inline" when converted to MathML equations.

MathType Guidelines

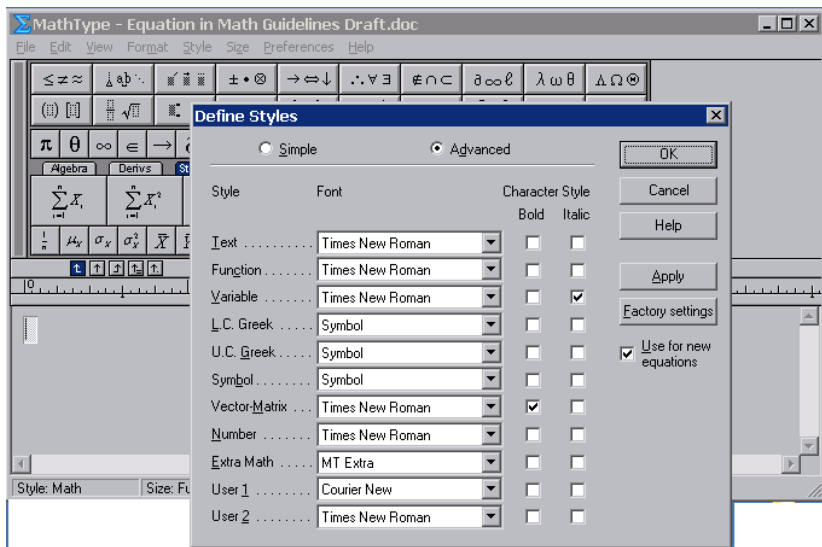
ALL display equations should be submitted in MathType in Microsoft Word. Preferences in MathType should be as follows.

For fonts, bold, italic, etc., please set Style/Define as follows:



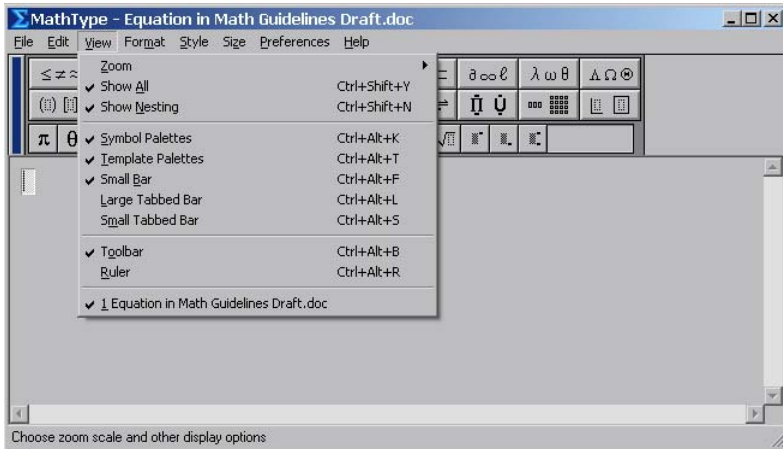
Define Styles menu. Primary font is set to Times New Roman. "Italic variables" is checked. "Italic lower-case Greek" is not checked unless your journal style is for italic Greek.

For the "Advanced" menu in Define Styles, set preferences displayed below. For this menu, choose Style, Define, Advanced.

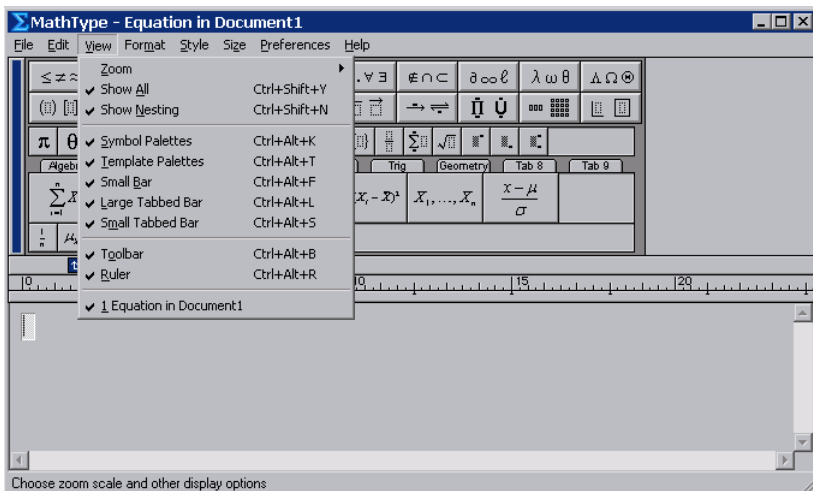


Define Styles menu, Advanced choices. Note "L.C. Greek" is not checked. All fonts seen here are Factory settings except L.C. Greek, which should be left unchecked unless your journal style is for italic Greek.

Preferences for “Viewing” in MathType should be set as follows.



Choosing “Show Nesting” will allow you to view expressions. It helps make sure that superiors, inferiors, limits, and summations are placed correctly.

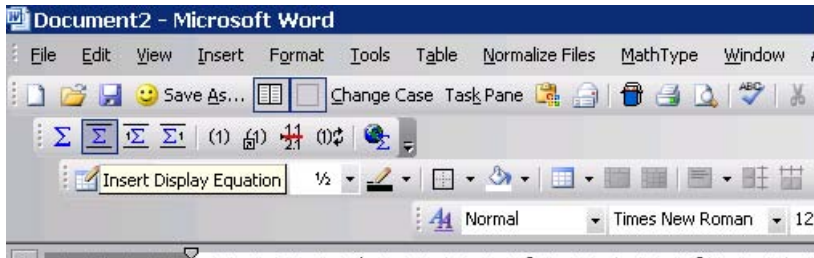


If all tabbed bars, nesting, palettes, and toolbars are visible, more choices for setting equations will be available.

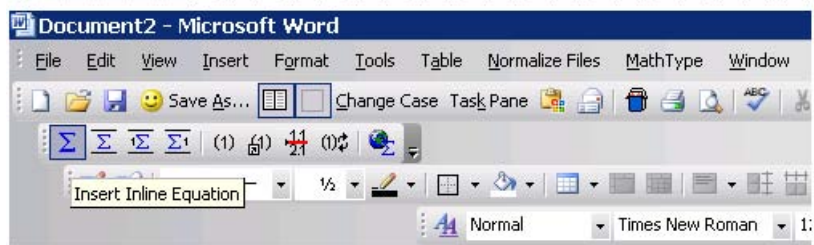
By choosing “Show Nesting,” you will be able to properly place characters after summations and integrals, inside fences, and under or over large overbars or “hats” (circumflexes).

Display Versus Inline Equation: What to Choose

The following screen shot shows how to choose a display equation (an equation that is set off from regular text) and choosing inline equation (an equation that will be set in running text). Note gray shadowing on the sigmas (Σ) indicates which one to choose.

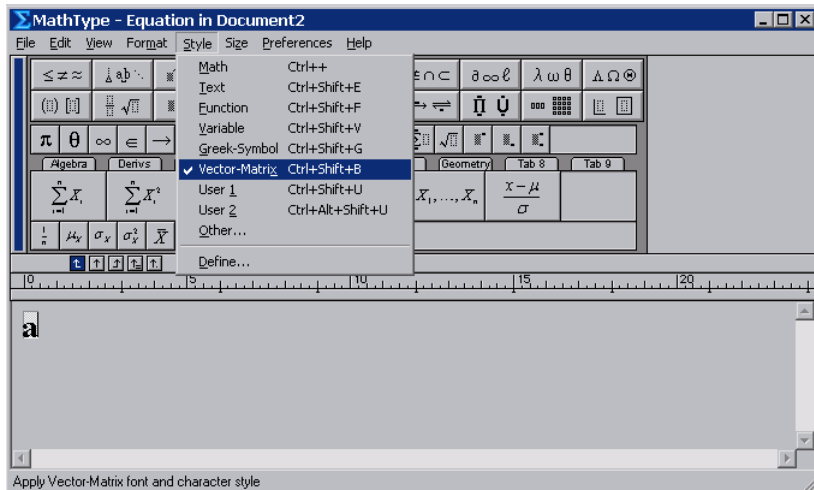


Choose this for DISPLAY EQUATION.



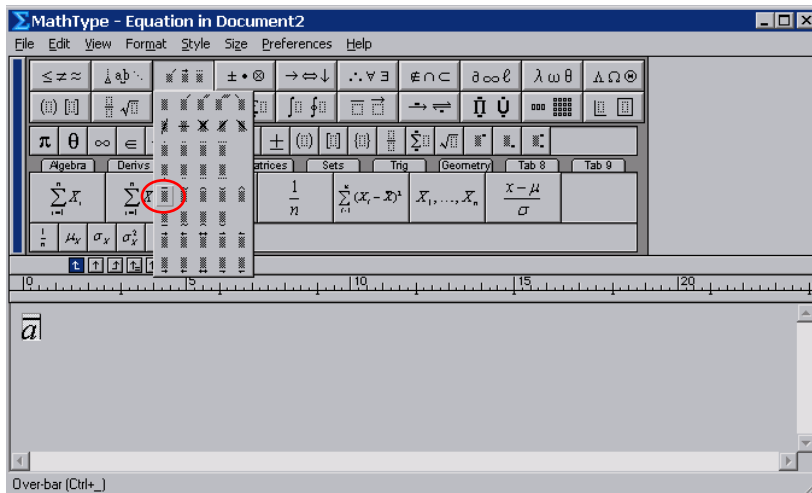
Choose this for INLINE or TEXT EQUATION, PHRASE, or CHARACTER.

Creating Bold Characters in MathType

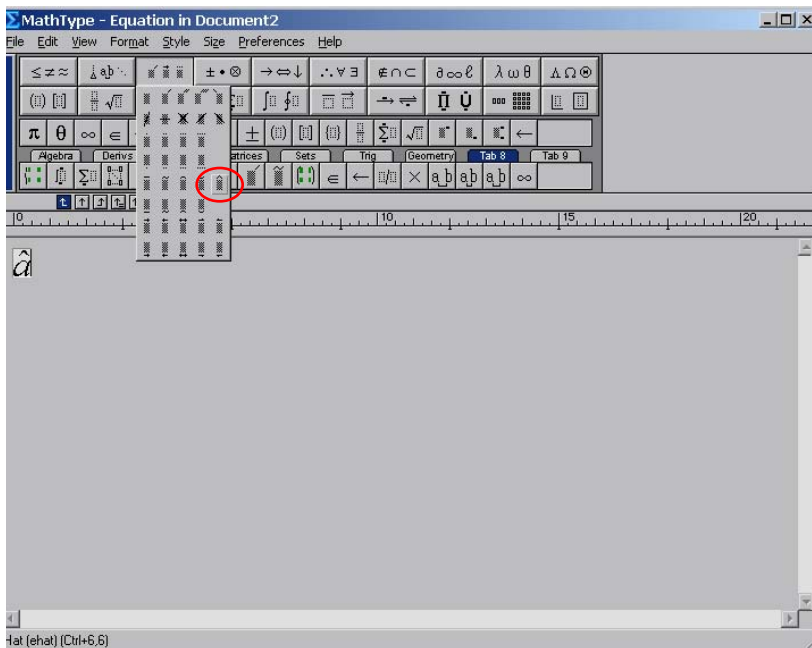


Bold letters in MathType should be created using the "Vector-Matrix" option under Style.

Creating Accented Characters in MathType

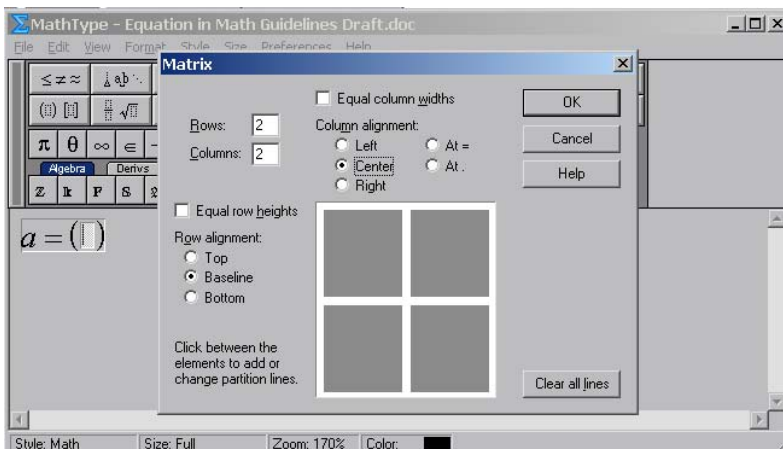


Accented characters should be made by typing the character, then selecting the template palette of accents. For a macron over a character, type the character, then choose the accent from the dropdown palette. Note that the description of the accent appears in the status bar at the bottom of the screen as you mouse over it. This will help you choose the correct accent.

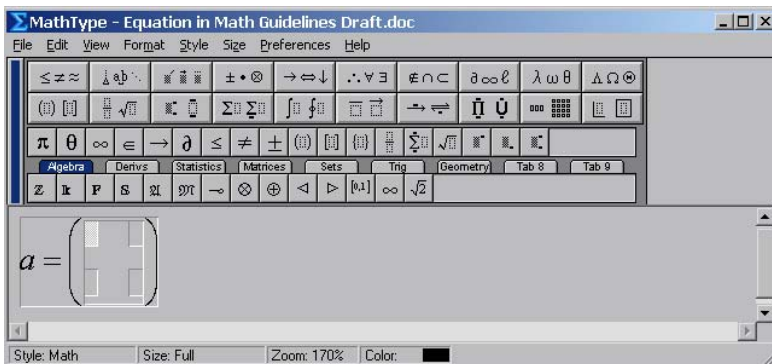


For a circumflex over one character, choose the "hat" from the palette.

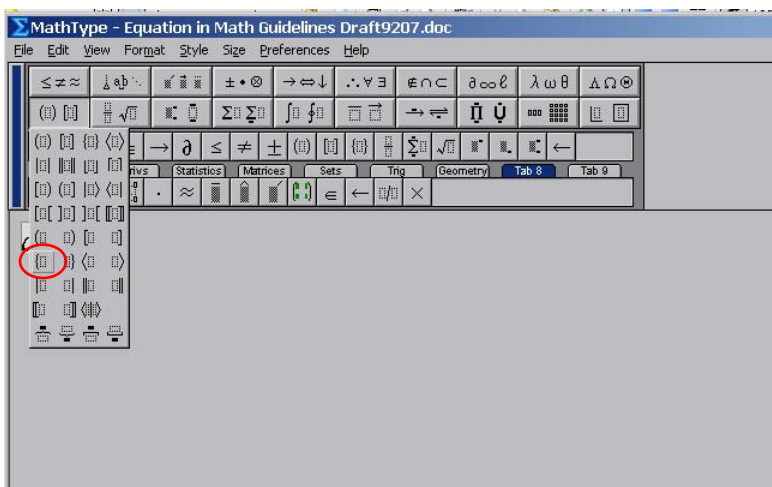
Matrices



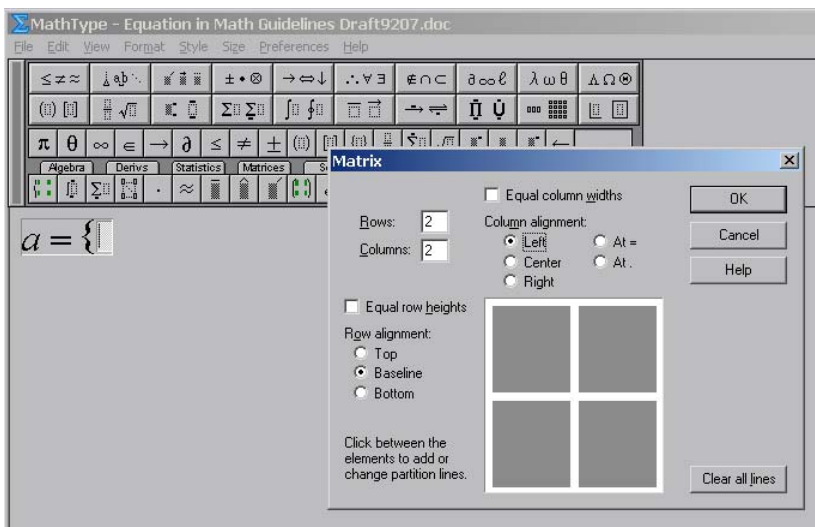
In MathType, there is a palette for building a matrix template. In the example at left, the matrix template chosen was 2 columns by 2 rows, center aligned, enclosed by expandable parentheses.



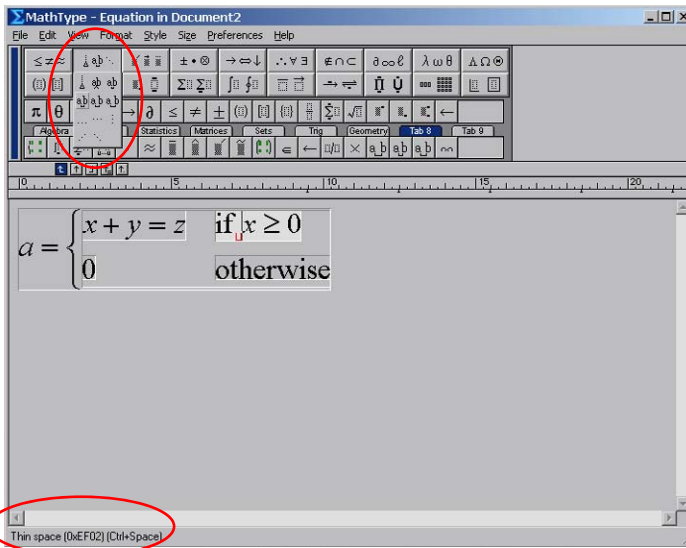
This matrix is the result of what was chosen in the previous example. This is a simple 2 x 2 matrix, elements centered, expandable fences used from fence palette.



A conditional statement is created using a single left brace chosen from the fences palette.



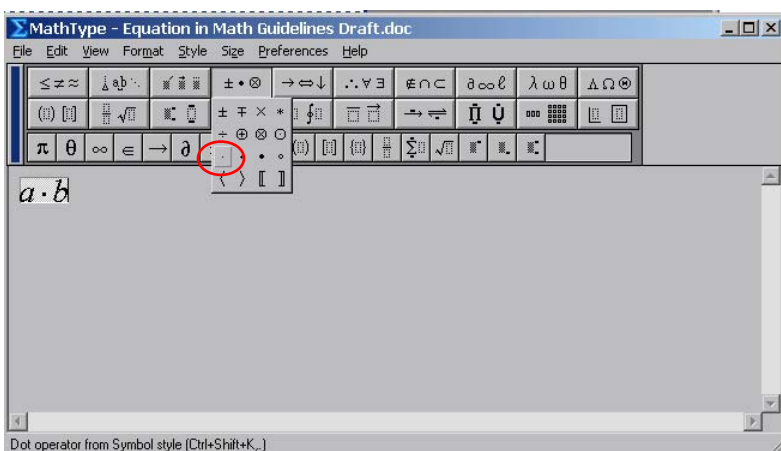
In the matrix palette, a 2×2 matrix is chosen, with left alignment of columns.



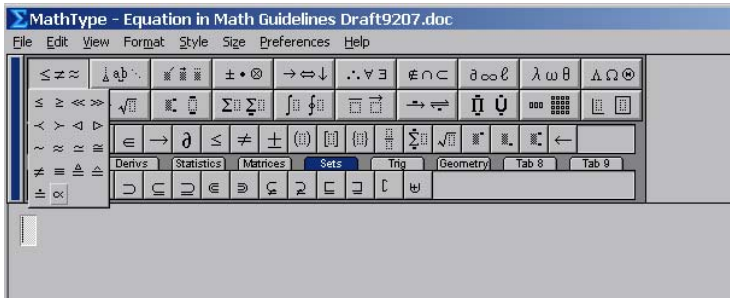
The resulting matrix is at left. Note that a space (␣) has been placed after "if."

This space is created from the menu shown. Note that the definition of each space is shown in status bar to help you choose the correct space.

Product Dots, Times Signs, Division, and Other Math Signs

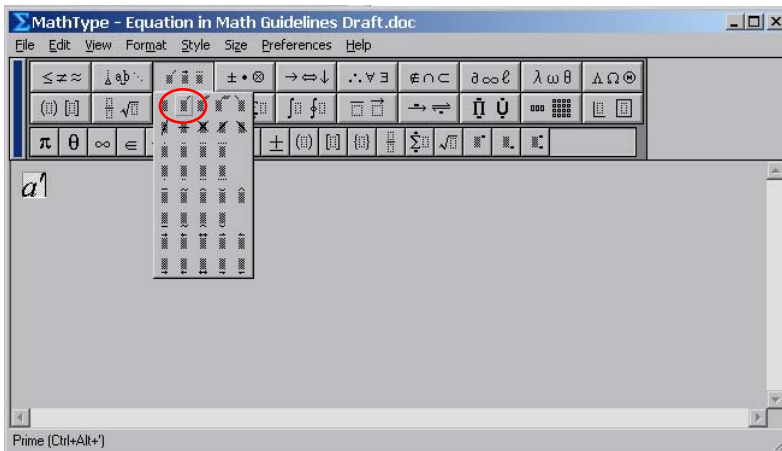


Symbols used in equations are numerous and can be confusing. Please use the small product dot (·) or times sign (×) when multiplying. For product dot, use the small dot on the symbol palette. The times sign, division symbol, and composite function are also located on this palette.



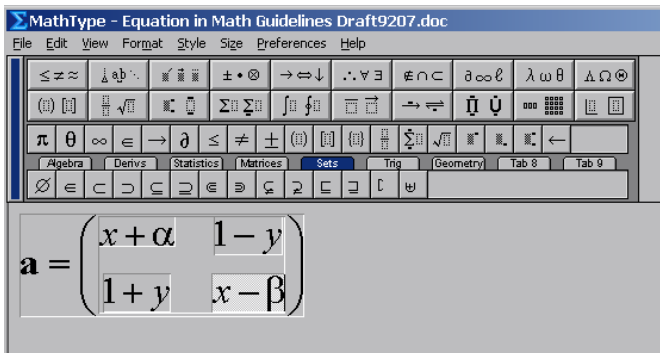
Most other math signs can be accessed by using the palettes in the first row of symbols in MathType. The example at left is just one of several palettes for this purpose.

Primes



To create a prime symbol (') or double or triple primes, please use the symbol palette. First type the letter, then use the drop-down palette to choose your symbol. See example at left for choosing "prime." This palette is also the "accented characters" palette. Type the character, then choose the accent or prime.

Roman Versus Italic



If ROMAN is wanted (except for Greeks), highlight character, choose "Text" from Style menu. Never make numbers, math operators, math symbols, or fences "Text." In the example at left, no characters are in "Text." Greeks default to ROMAN when the Style/Define menu option for Greeks has not been checked "italic." Variables in Style/Define are "italic." Vector/Matrices are "bold" as in the Style/Define menu.