

# How to Type Math Symbols in Microsoft Word

In this article, you will learn how to type the following:

a) **Equations:** For example,  $y = 3x - 2$

b) **Fractions and Rational Expressions:** For example,  $\frac{1}{2}$  or  $\frac{2x+3}{5x-1}$

c) **Matrices:** For example,  $\begin{bmatrix} 1 & 0 & 7 \\ -6 & 2 & 2 \\ 3 & 8 & -1 \end{bmatrix}$

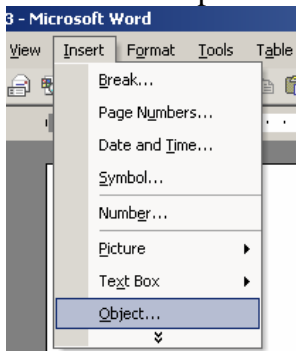
d) **Trigonometric Functions:** For example,  $\sin 60^\circ$

## Equation Editor Installation

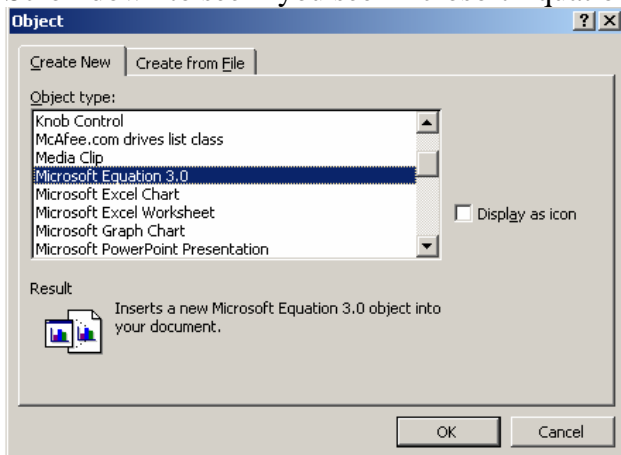
Check to see if you have the Equation editor installed.

Open MS Word

From the dropdown menu, click on "Insert" and select "Object."



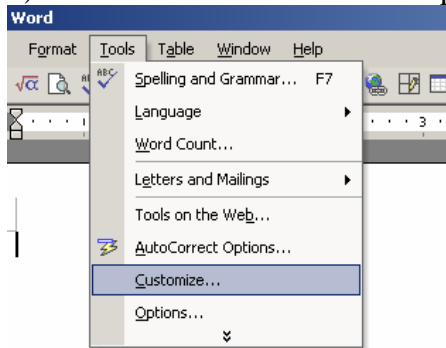
Scroll down to see if you see Microsoft Equation 3.0



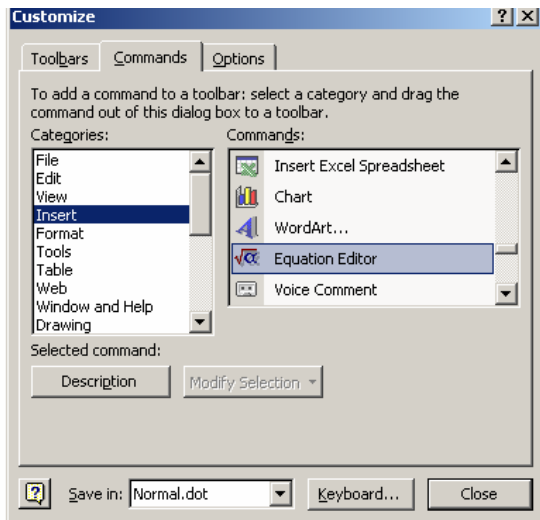
If you do not see it, you will have to install it using the installation CD (if you cannot locate your CD, contact tech support).

If you would like to add the Equation Editor to your toolbar, the following explains how:

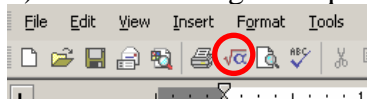
1) Click on "Tools" from the dropdown menu and select "Customize."



2) Now, click on the Commands tab. Under Categories, select "Insert." Under Commands, scroll until you find Equation Editor.



3) Click and drag the Equation Editor icon to your toolbar.



## How to Use the Equation Editor

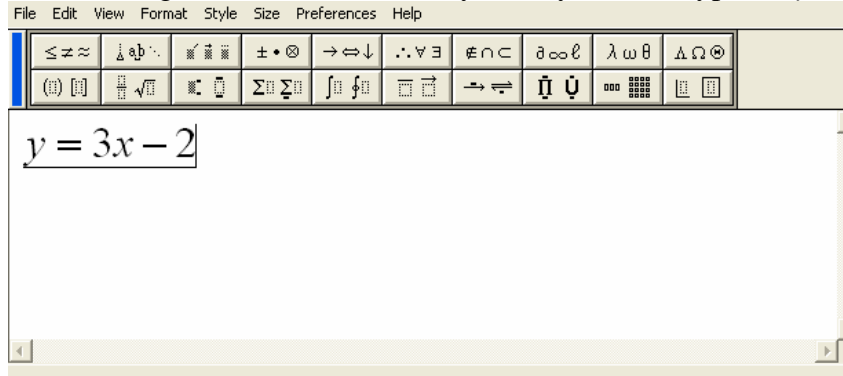
1) If you have added the Equation Editor to your toolbar, click on the Equation Editor icon. If you did not, click on **Insert > Object > Microsoft Equation 3.0**.

You should see the following toolbar pop up:

If you do not see the toolbar above, click on View and check next to Toolbar. You can grab the toolbar and move it wherever you would like on your screen.

2) **How to type equations:** The first expression we will type is:  $y = 3x - 2$

With the cursor flashing in the editor box, use your keyboard to type the  $y = 3x - 2$

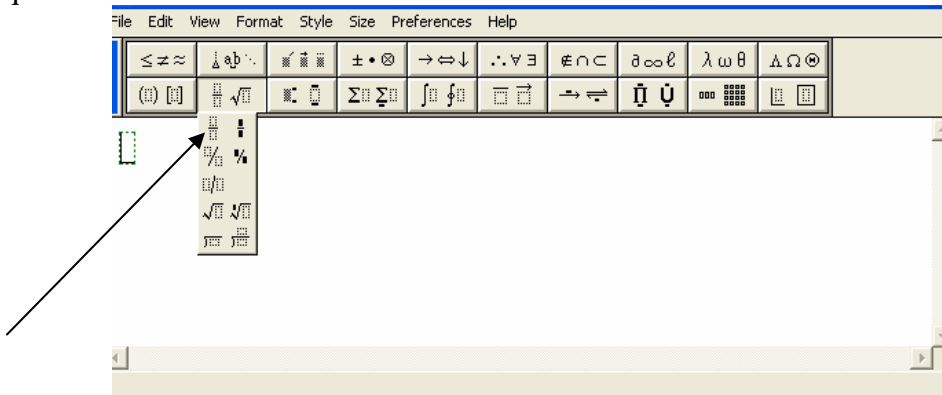


Now suppose that you wanted to type something next to this, you would use the right arrow key to get the cursor out of the exponent. In fact, try using the up, down, left, and right arrow keys to move around in the equation editor. You will see that the cursor flashes in different locations.

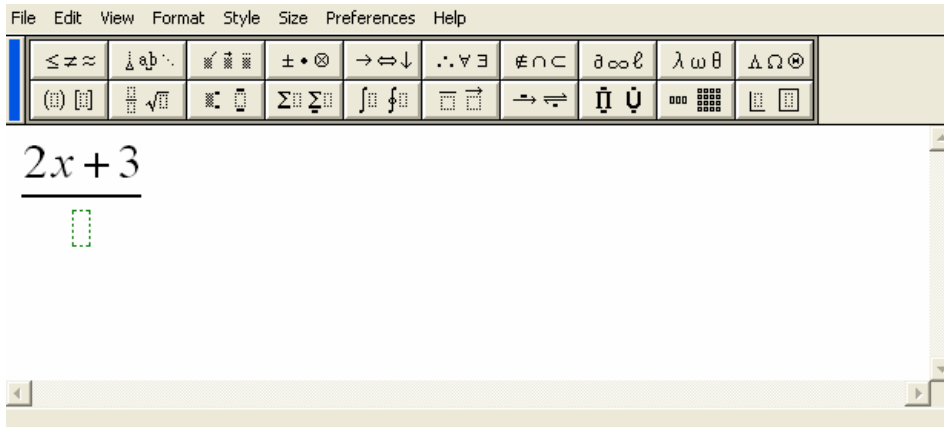
**To insert this expression into your word document:** Click anywhere outside of the Equation Editor box.  
**To edit an expression:** Double-click on the expression you would like to edit. The toolbar should reappear.  
**To delete an expression:** Click on the expression one time to highlight and then press the delete button on your keyboard.

3) **How to type fractions:** Next let's try:  $\frac{2x + 3}{5x - 1}$

Open the equation editor.

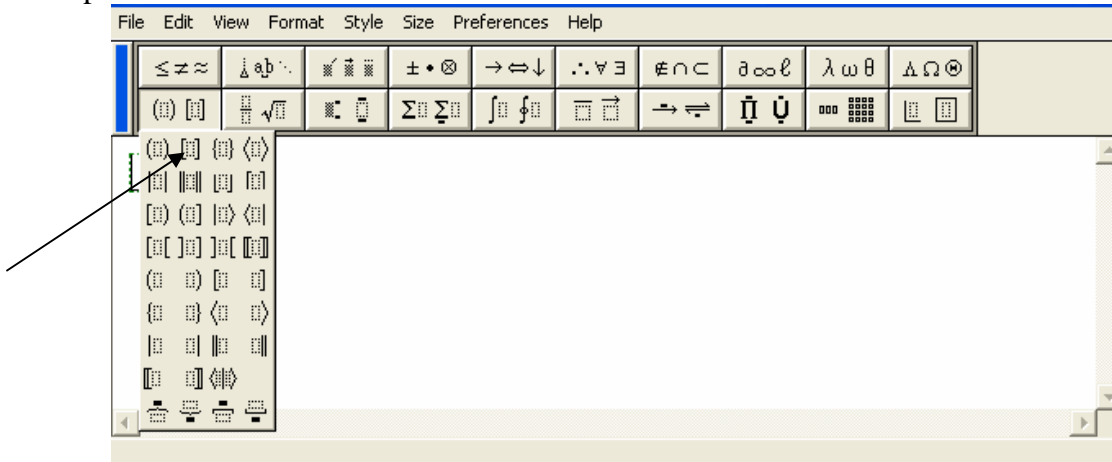


Select the fraction bar feature. Type  $2x+3$ . Use the down arrow key on your keyboard to move to the denominator. Then type  $5x-1$ . Click anywhere outside of the Equation Editor box to insert this into your word document.

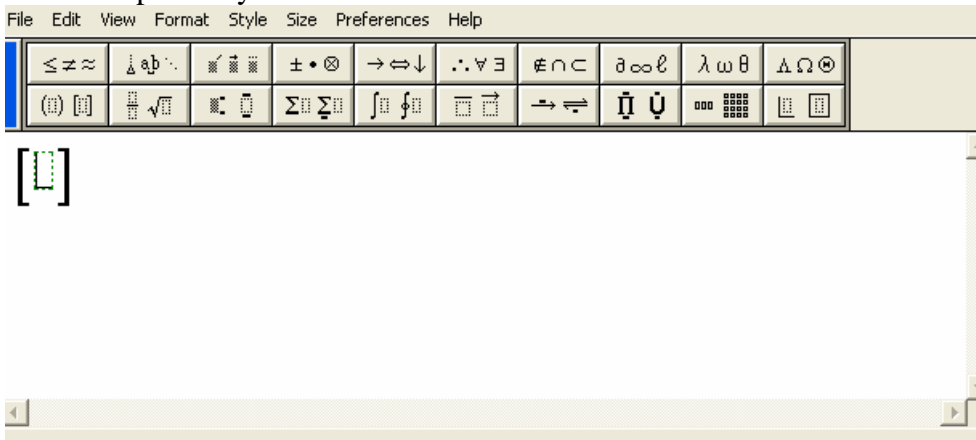


3) **How to type matrices:** Let's try: 
$$\begin{bmatrix} 1 & 0 & 7 \\ -6 & 2 & 2 \\ 3 & 8 & -1 \end{bmatrix}$$

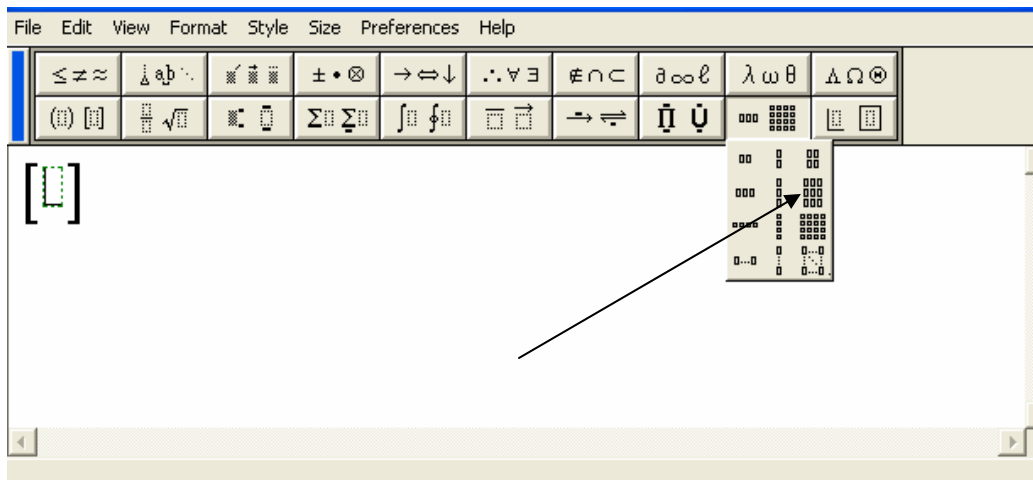
Click on the parenthesis feature first:



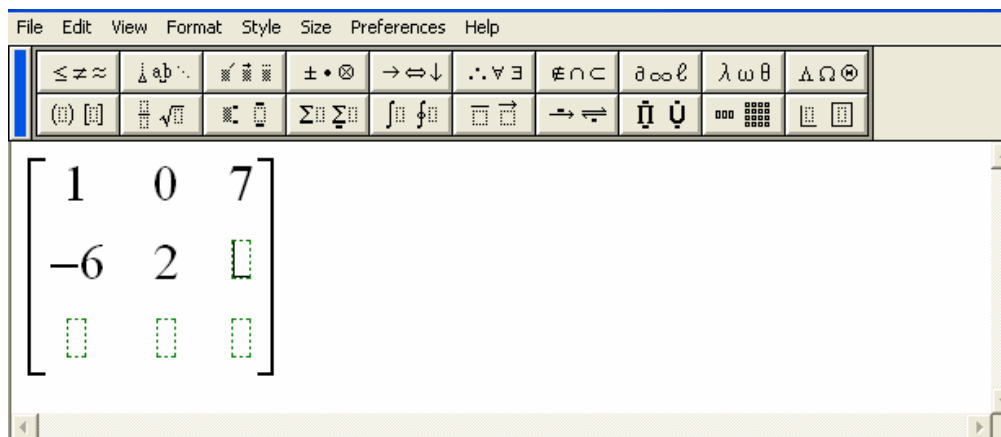
Choose the brackets to represent your matrix:



Click on the entries feature and choose the size of your matrix:



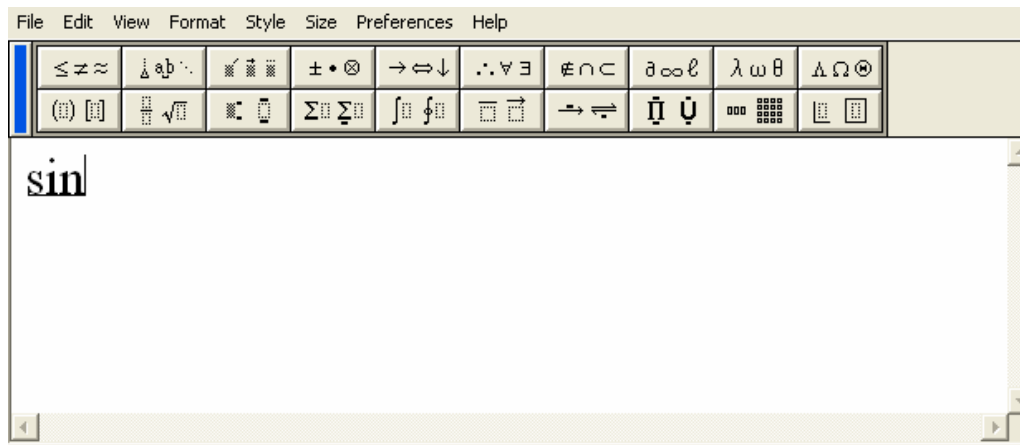
Type in the entries. To go to the next entry, hit the tab button.



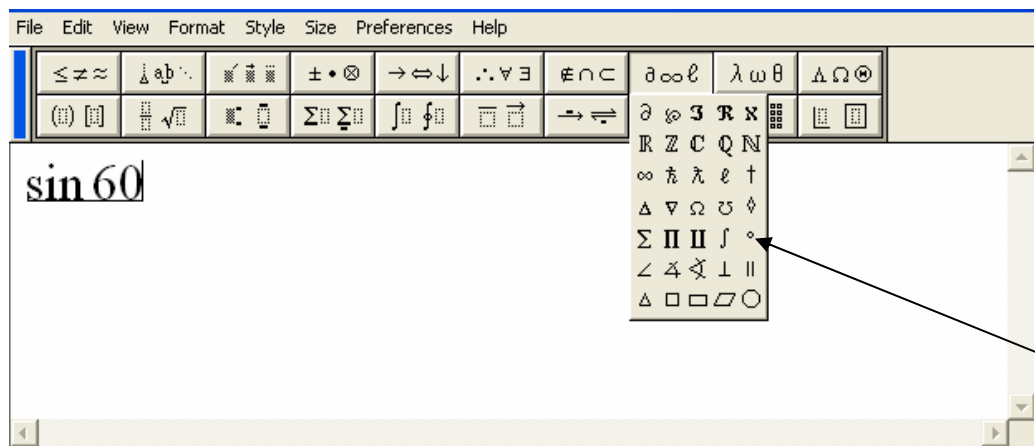
Now click outside of this box to insert the expression into your word document. You can start a new equation editor box next to this one if you want to show the work in the next step.

4) **Typing trigonometric functions:** Let's try:  $\sin 60^\circ$

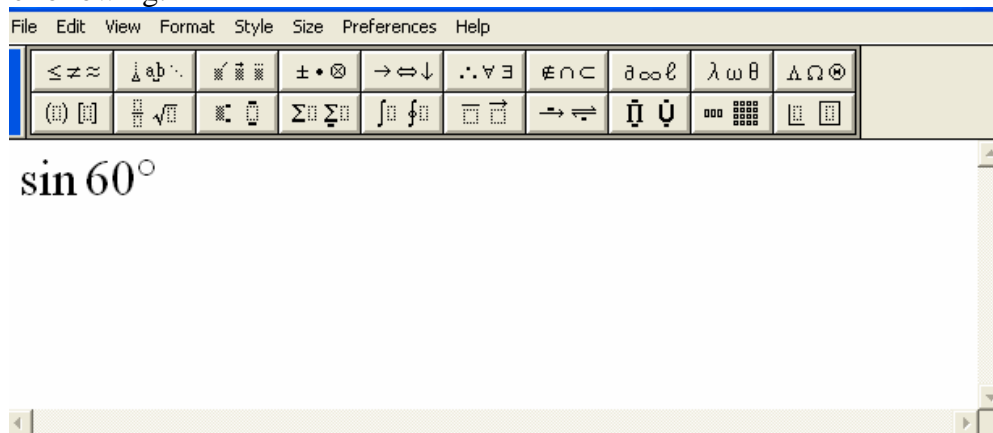
Open up the equation editor and type your trig function, in this case "sin"



Now type your degree, 60, and to find the degree symbol click on the symbol feature provided below:



Which gives you the following:



Note: To insert the symbol  $\pi$  in equation editor, click on the Greek symbol feature and then on the symbol:

File Edit View Format Style Size Preferences Help

$\leq \approx$	$\Delta \phi \cdot$	$\frac{\partial}{\partial x}$	$\pm \cdot \otimes$	$\rightarrow \leftrightarrow$	$\cdot \cdot \forall \exists$	$\notin \cap \subset$	$\partial \infty \ell$	$\lambda \omega \theta$	$\Delta \Omega \oplus$
$(\cdot)$	$\frac{\partial}{\partial x}$	$\sqrt{\cdot}$	$\Sigma \sum$	$\int \oint$	$\square \square$	$\rightarrow \Rightarrow$	$\dot{U} \dot{U}$	$\alpha \beta \chi \delta$	$\square$

$\pi$

$\alpha$	$\beta$	$\chi$	$\delta$
$\epsilon$	$\phi$	$\psi$	$\gamma$
$\eta$	$\iota$	$\kappa$	$\lambda$
$\mu$	$\nu$	$\omicron$	$\pi$
$\omega$	$\theta$	$\vartheta$	$\rho$
$\sigma$	$\zeta$	$\tau$	$\upsilon$
$\omega$	$\xi$	$\psi$	$\zeta$

