















that list, type “x)dx=”, click on , select  from that list, type a 1, then down arrow and enter π as before, right arrow to get out of the fraction, and type “ln”. To get the large parentheses click on , and select the parentheses from the list. Complete the rest of the expression.

Example 4. Create the expression $\mathbf{Ax} = \begin{bmatrix} 2 & 0 & -3 \\ 1 & 3 & -2 \\ 2 & 7 & 0 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix}$. Click on Style on the toolbar

at the top of the screen and select Matrix-Vector. Type “Ax” then click on Style again and change back to Math, then type “=”. Click on  and select  from the list. Next click on  and select  from the list. Click on each of the 9 cells and type in the appropriate number. Press right arrow to get out of the matrix. Open another set of brackets from , click on , and this time select .

Click in the top cell and type “x”. Now click on  and select  from the list. Type a 1 for the top subscript. Repeat the process for the other two x’s. When working with matrices or other structures created with , we do have control of the alignment of the rows and columns. Click on Style on the top tool bar, then on Matrix in the drop down menu. A dialog box will open with several choices of how to align the rows and columns.










It is not uncommon for an existing equation to require editing. To do this, simply double click on the equation and the equation editor with the existing equation will open. The equation can now be edited the same as text in any text editor.

All of the examples above will leave the equation in line with the text. If an equation is very long or very important, it should be displayed, meaning that it should be centered in its own line with a blank line above and below it. To do this, create the equation as in the examples above, then place the cursor just in front of the equation and press ENTER twice, put the cursor just past the equation and press enter twice. Highlight the equation by placing the cursor right in front of it and pressing right arrow while holding down the shift key, then press the centering button, , on the Word toolbar. Go to the second line below the equation and continue with the text.

If an equation is to be referred to later in a paper, it should be displayed with a caption at the left margin. The caption is usually a number or a capital letter in parentheses. For example, suppose that an equation is to be displayed with the caption (1). Place the cursor at the left margin double spaced below the previous line of text. Put in the caption, “(1)”, then create the equation. Now place the cursor between the caption and the equation and press TAB until the equation is approximately centered.

Example 5. Create the expression

(A)
$$|x| = \begin{cases} x & \text{for } x \geq 0 \\ -x & \text{for } x < 0 \end{cases}$$

With the cursor on the left margin type “(A)” then enter the equation editor and type “ $|x|=$ ”. Now click on  and select  from the list. Now click on  and select  from the list. In the upper cell type “x” then click on Style on the top toolbar and select Text. Now type “ ” for “,” click on Style again and switch back to Math, then type the rest of that line. Now click in the lower cell and complete it in a similar manner. If necessary, change the Style back to Text and add or delete spaces as needed to make the for’s line up properly. We also notice that the spacing within the absolute value sign and between the absolute value and the equal sign do not seem right. To fix this (set the Style back to Math if necessary) place the cursor to the left of the x in the absolute value, click on  and select  from the list. This removes the excessive space, but now there is not enough space. Click  again and this time select  (the first space size) from the list. This inserts the smallest available space. Repeat this process to the right of x to set that spacing. Now move the cursor between the absolute value sign and the equal sign. Click  and this time pick the third space size to insert. This should now make it the same as the space on the other side of the equal sign.

For more information about the use of the equation editor, try “Help” on the top toolbar in the editor.

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