

This document shows how to use math formulas using LibreOffice.

First of all, download LibreOffice from the following link:

<https://www.libreoffice.org/download/download-libreoffice/>

Using Math formulas in LibreOffice:

LibreOffice includes a powerful tool called LibreOffice Math, which allows you to create and insert mathematical formulas into your documents. This guide walks you through the basics of using it.

1. Opening LibreOffice Math

You can use Math as a standalone application or from within other LibreOffice programs like Writer.

From LibreOffice Start Centre:

- Open LibreOffice.
- Click on Formula.

From LibreOffice Writer:

- Go to Insert → Object → Formula.

2. Understanding the Formula Editor

The formula editor uses a markup language to write formulas. For example:

$a^2 + b^2 = c^2$

renders as: $a^2 + b^2 = c^2$

3. Common Math Formula Syntax

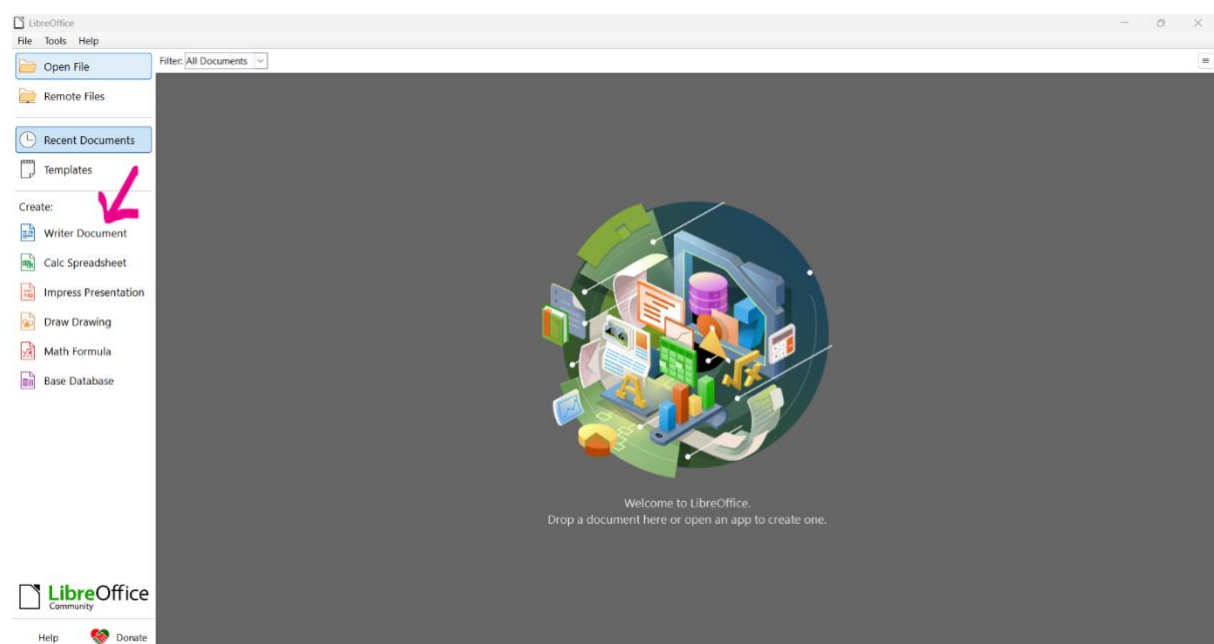
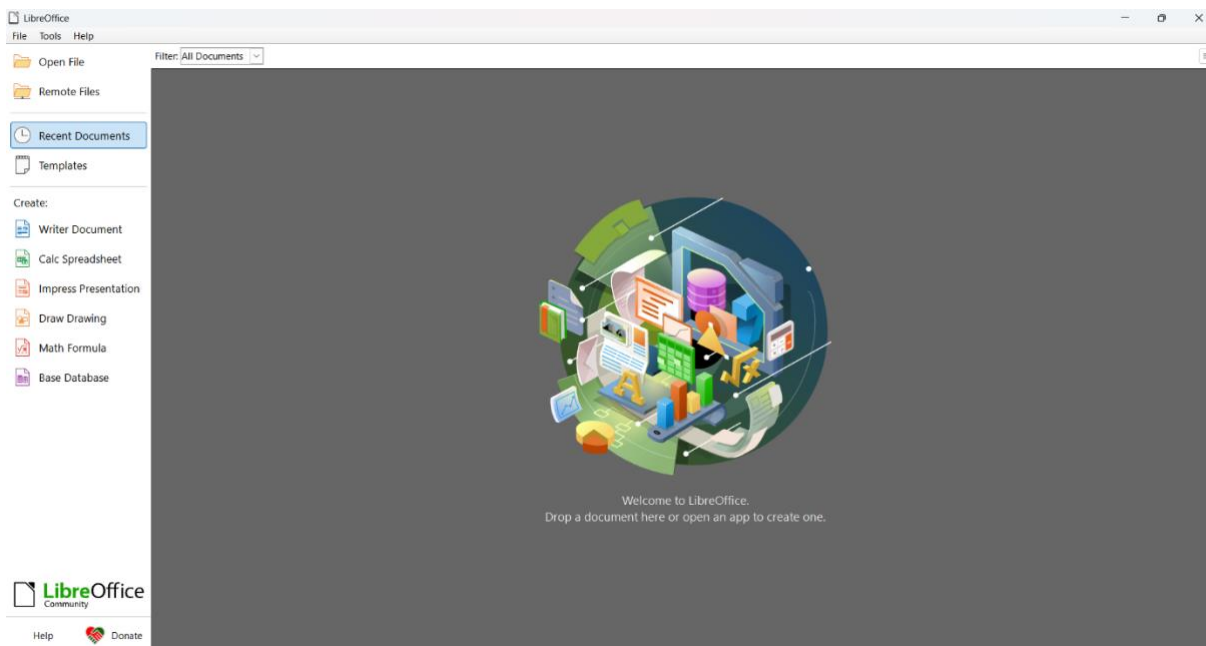
Expression	Formula Syntax	How would this expression render
Fraction	a over b	$\frac{a}{b}$
Superscript	x^2	x^2
Subscript	x_1	x_1
Square Root	sqrt{x}	\sqrt{x}
nth Root	nroot{3}{x}	$\sqrt[3]{x}$
Sum	sum from {i=1} to {n} a_i	$\sum_{i=1}^n a_i$
Integral	int from {a} to {b} f(x) dx	$\int_a^b f(x) dx$
Greek π	%pi	π
Infinity	infinity	∞
matrix	left[matrix{a#b#c##d#e#f##g#h#i}right]	$\begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$
Limit	lim from{x rightharpoonup 0}f(x)	$\lim_{x \rightarrow 0} f(x)$

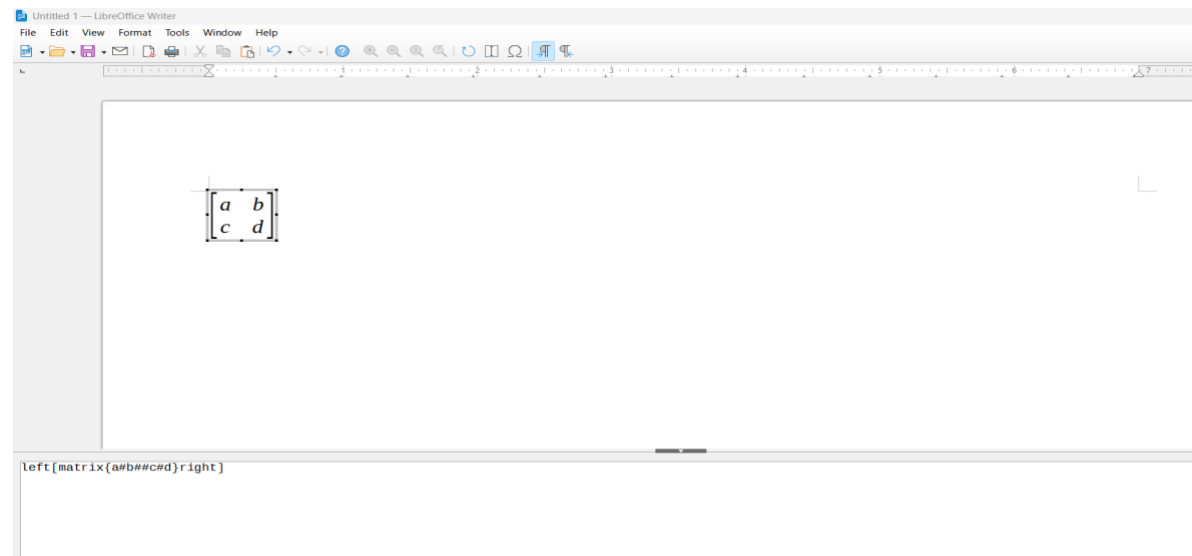
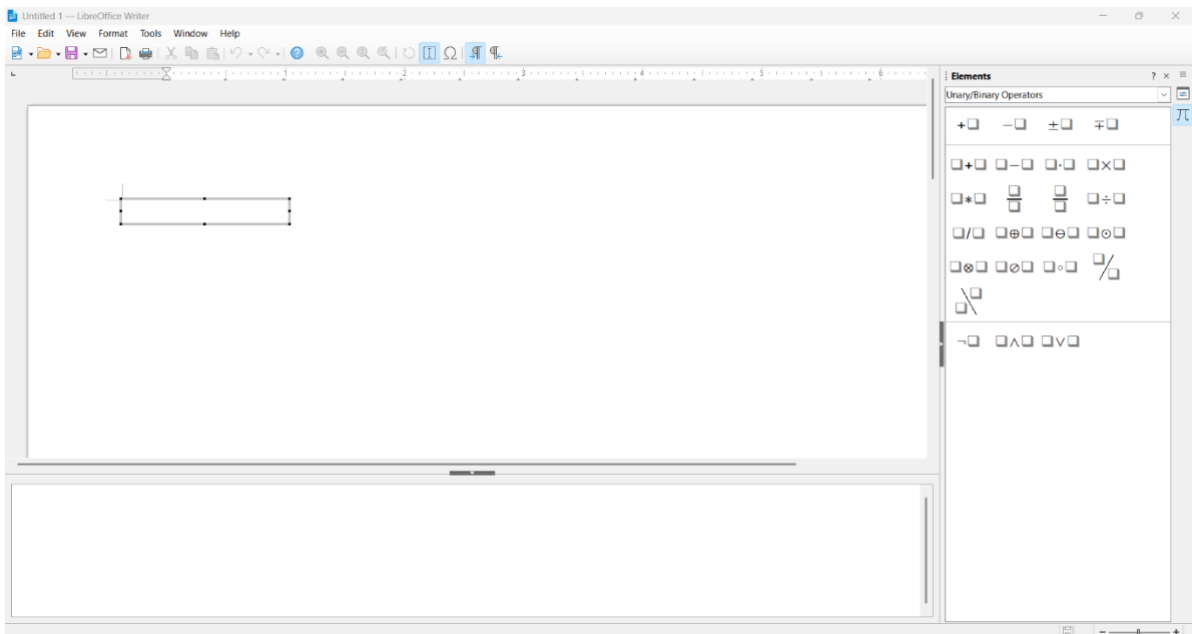
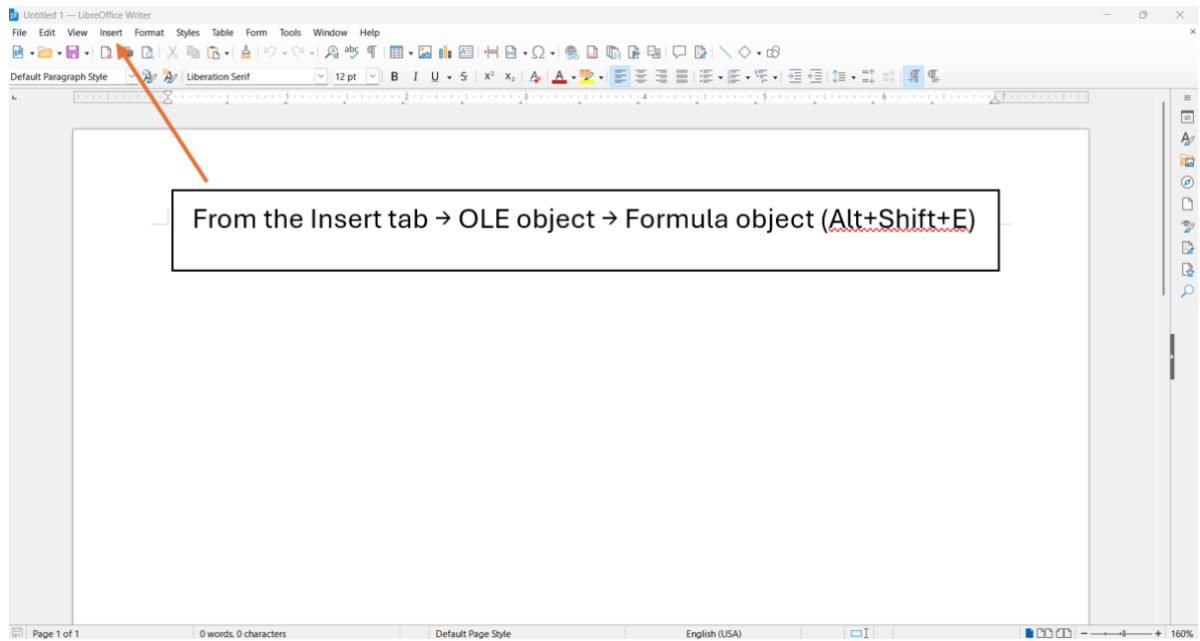
Most of these formulas are built-in functions that you can insert by going to the Insert tab → OLE Object → Formula Object (Alt+Shift+E), and then selecting from the dropdown list on the right-hand side of the page.

4. Inserting Special Characters

You can insert special characters either by typing the names (like alpha, beta, rightarrow) or using the Elements panel, which provides clickable symbols.

To insert a math formula, follow the steps as in the pictures.





5. Editing Formulas

- Click the formula object to edit.
- Use the bottom editor to make changes.
- You can resize and align formulas just like images.

6. Tips for Using LibreOffice Math

- Use parentheses {} to group expressions.
- Use spaces carefully, especially in compound formulas.
- For nested expressions, wrap parts of the formula in {} to control formatting.

Example: $(a + b) \text{ over } \{c - d\}$

7. Saving and Exporting

- Formulas are saved as OLE objects in Writer.
- You can also copy/paste them into other LibreOffice apps.
- Export to PDF maintains high-quality math rendering.