

# User Manual for Equation Master Pro



Welcome to **Equation Master Pro**, your go-to tool for creating, calculating, and rendering LaTeX equations. This manual explains how to use the app and provides an overview of supported LaTeX commands for generating and solving mathematical expressions.

Equation Master Pro

```
\pi = \sqrt{6\sum_{n=1}^{\infty}\frac{1}{n^2}}
= \left(\int_{-\infty}^{+\infty} e^{-x^2} dx\right)^2
```

[Render Formula](#) [Calculate Formula](#) [Clear](#)

$$\pi = \sqrt{6 \sum_{n=1}^{\infty} \frac{1}{n^2}} = \left( \int_{-\infty}^{+\infty} e^{-x^2} dx \right)^2$$

[Take Screenshot](#)

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# 1. Getting Started

## 1.1 Installation

- 1     **Download** the app from [App Store](#).
- 2     **Install** and open it on your device.
- 3     **No account required:** Start using the app immediately.

# 2. How the App Works

## 2.1 Features Overview

- **Write and Render:** Input LaTeX equations in the app to render them as formatted mathematical expressions.
- **Calculate Results (optional):** Solve supported mathematical expressions directly in the app.
- **Export Options:** Copy the rendered equation directly for use in documents or presentations.

## 2.2 Interface Overview

- 1     **Input Field:** Type your LaTeX equation here.
- 2     **Render Button:** Click to render your LaTeX equation.
- 3     **Calculate Button:** Use this to solve supported mathematical expressions.
- 4     **Export Options:**
  - **Copy Rendered Output:** Use rendered equations in other documents.

# 3. LaTeX Commands Supported by the App

Your app supports a subset of LaTeX commands for mathematical expressions. Below are the supported commands and examples of how to use them.

## 3.1 Basic Math

Multiply	$2 \cdot 4$
	$2 * 4$
Multiply	$2^4$

$$\sqrt{16}$$

Divide  $4 \backslash div 2$

$$4 \div 2$$

Fraction  $\backslashfrac{4}{2}$

$$\frac{4}{2}$$

Superscript (power)  $2^2$

$$2^2$$

Subscript  $A_{\text{total}}$

$$A_{total}$$

## 3.2 Supported Symbols:

Pi symbol  $\backslashpi$

$$\pi$$

Infinity symbol  $\backslashinfty$

$$\infty$$

Plus or Minus  $\backslashpm$

$$\pm$$

Greater than or equal  $\backslashgeq$

$$\geq$$

Less than or equal  $\backslashleq$

$$\leq$$

Not equal  $\backslashneq$

$\neq$

Approximately equal

$\backslash \text{approx}$

$\approx$

### 3.3 Advanced Math

Summation

$\backslash \text{sum}_{\{a=1\}^4} a$

$$\sum_{a=1}^4 a$$

Product Notation

$\backslash \text{prod}_{\{a=1\}^4} a$

$$\prod_{a=1}^4 a$$

Integral

$\backslash \text{int}_0^2 x^3 ab$

$$\int_0^2 x^3 ab$$

## 4. Using the Calculator

### 4.1 Supported Calculations

Equation Master Pro can calculate and display results for mathematical expressions. As long as the before mentioned functions contain numbers Equation Master Pro is able to calculate and display the results.

$$\sqrt{\frac{9^3}{4^2 + 5}} = 5.8918830363717944$$

## 4.2 How to Calculate

- 1 Enter a supported formula in the input field.
- 2 Click the **Calculate Formula** button.
- 3 View the result displayed below your rendered equation.

## 5. Exporting Your Work

### 5.1 Copy Formula

- After rendering an formula, click **Take Screenshot** to copy the input formula.
- Paste it directly into your document.

### 5.2 Copy Rendered Equation

- Use **Take Screenshot** to copy the calculated equation.
- Paste it into your word processor, slide show, or report.

## 6. Tips for Using LaTeX in the App

### 6.1 Combining Commands

You have the capability to combine supported commands to formulate more intricate equations. Additionally, other LaTeX code is expected to function effectively. The LaTeX discussed in this document merely represents the fundamentals and only scratches the surface of its potential.

### 6.2 Error Checking

If your equation doesn't render or calculate:

- Check for typos or missing { } brackets.
- Ensure you're using only supported LaTeX commands.

## 7. Troubleshooting

### 7.1 Common Errors

- **Unrecognised Command:** The app only supports specific LaTeX commands (see section 3). Other LaTeX can be tried but may or may not work. Since there is so much LaTeX we didn't try all possibilities in combination with each other.
- **Invalid Input:** Ensure your math expressions are correctly formatted. When nothing happens or when an error is displayed the used LaTeX isn't supported.

## 7.2 Need Help?

Although we can't help individuals learning LaTeX. Our support team is available for assistance. <https://www.enlightenment.school/contact.html>

## 8. Appendix: Quick Reference

### Greek:

$\alpha$	\alpha	$\vartheta$	\vartheta	$\varpi$	\varpi	$\chi$	\chi	$H$	\Eta	$\Pi$	\Pi
$\beta$	\beta	$\iota$	\iota	$\rho$	\rho	$\psi$	\psi	$\Theta$	\Theta	$P$	\P
$\gamma$	\gamma	$\kappa$	\kappa	$\varrho$	\varrho	$\omega$	\omega	$I$	I	$\Sigma$	\Sigma
$\delta$	\delta	$\lambda$	\lambda	$\sigma$	\sigma	$A$	A	$K$	K	$T$	T
$\epsilon$	\epsilon	$\mu$	\mu	$\varsigma$	\varsigma	$B$	B	$\Lambda$	\Lambda	$\Upsilon$	\Upsilon
$\varepsilon$	\varepsilon	$\nu$	\nu	$\tau$	\tau	$\Gamma$	\Gamma	$M$	M	$\Phi$	\Phi
$\zeta$	\zeta	$\xi$	\xi	$\upsilon$	\upsilon	$\Delta$	\Delta	$N$	N	$X$	X
$\eta$	\eta	$o$	o (gewoon o)	$\phi$	\phi	$E$	E	$\Xi$	\Xi	$\Psi$	\Psi
$\theta$	\theta	$\pi$	\pi	$\varphi$	\varphi	$Z$	Z	$O$	O	$\Omega$	\Omega

### Operators:

$\pm$	\pm	$\triangleright$	\triangleright	$\setminus$	\setminus	$\circ$	\circ
$\mp$	\mp	$\times$	\times	$\bullet$	\bullet	$\star$	\star
$\vee$	\vee	$\wr$	\wr	$\ddagger$	\ddagger	$\cap$	\cap
$\dagger$	\dagger	$\oplus$	\oplus	$\smallsetminus$	\smallsetminus	$\cdot$	\cdot
$\wedge$	\wedge	$\otimes$	\otimes	$\cup$	\cup	$\triangleleft$	\triangleleft

## Relations:

$\leq$	<code>\leq</code>	$\ni$	<code>\ni</code>	$\approx$	<code>\approx</code>
$\vdash$	<code>\vdash</code>	$\cong$	<code>\cong</code>	$ $	<code>\mid</code>
$\in$	<code>\in</code>	$\supset$	<code>\supset</code>	$\equiv$	<code>\equiv</code>
$\nvDash$	<code>\nvDash</code>	$\supseteq$	<code>\supseteq</code>	$\sim$	<code>\sim</code>
$\subset$	<code>\subset</code>	$\geq$	<code>\geq</code>	$\simeq$	<code>\simeq</code>
$\subseteq$	<code>\subseteq</code>	$\models$	<code>\models</code>	$\smile$	<code>\smile</code>
$\perp$	<code>\perp</code>	$\frown$	<code>\frown</code>	$\neq$	<code>\neq</code>

## Arrows:

$\leftarrow$	<code>\leftarrow</code>	$\rightarrow$	<code>\rightarrow</code>	$\uparrow$	<code>\uparrow</code>
$\longleftarrow$	<code>\longleftarrow</code>	$\longrightarrow$	<code>\longrightarrow</code>	$\downarrow$	<code>\downarrow</code>
$\Leftarrow$	<code>\Leftarrow</code>	$\Rightarrow$	<code>\Rightarrow</code>	$\Updownarrow$	<code>\Updownarrow</code>
$\Longleftarrow$	<code>\Longleftarrow</code>	$\Longrightarrow$	<code>\Longrightarrow</code>	$\Downarrow$	<code>\Downarrow</code>
$\leftrightarrow$	<code>\leftrightarrow</code>	$\updownarrow$	<code>\updownarrow</code>	$\Updownarrow$	<code>\Updownarrow</code>
$\Leftrightarrow$	<code>\Leftrightarrow</code>	$\Longleftrightarrow$	<code>\Longleftrightarrow</code>	$\nwarrow$	<code>\nwarrow</code>
$\mapsto$	<code>\mapsto</code>	$\longmapsto$	<code>\longmapsto</code>	$\nearrow$	<code>\nearrow</code>
$\hookleftarrow$	<code>\hookleftarrow</code>	$\hookrightarrow$	<code>\hookrightarrow</code>	$\overleftarrow{\rightarrow}$	<code>\overleftarrow{\rightarrow}</code>
$\searrow$	<code>\searrow</code>	$\swarrow$	<code>\swarrow</code>	$\overrightarrow{\leftarrow}$	<code>\overrightarrow{\leftarrow}</code>

## AMSTeX-functions:

<code>\arccos</code>	<code>\cos</code>	<code>\csc</code>	<code>\exp</code>	<code>\ker</code>	<code>\limsup</code>	<code>\min</code>
<code>\arcsin</code>	<code>\cosh</code>	<code>\deg</code>	<code>\gcd</code>	<code>\lg</code>	<code>\ln</code>	<code>\Pr</code>
<code>\arctan</code>	<code>\cot</code>	<code>\det</code>	<code>\hom</code>	<code>\lim</code>	<code>\log</code>	<code>\sec</code>
<code>\arg</code>	<code>\coth</code>	<code>\dim</code>	<code>\inf</code>	<code>\liminf</code>	<code>\max</code>	<code>\sin</code>
<code>\sinh</code>	<code>\sub</code>	<code>\tan</code>	<code>\tanh</code>			

## Non categorised:

$\sum$	\sum	$\coprod$	\coprod	$\biguplus$	\biguplus
$\bigcap$	\bigcap	$\bigsqcup$	\bigsqcup	$\oint$	\oint
$\odot$	\bigodot	$\bigoplus$	\bigoplus	$\bigwedge$	\bigwedge
$\prod$	\prod	$\int$	\int	$\bigotimes$	\bigotimes
$\bigcup$	\bigcup	$\bigvee$	\bigvee		

...	\ldots	...	\cdots	:	\vdots	\ddots	\ddots
$\forall$	\forall	$\infty$	\infty	$\hbar$	\hbar	$\emptyset$	\emptyset
$\exists$	\exists	$\nabla$	\nabla	$\triangle$	\triangle	$\partial$	\partial
$\imath$	\imath	$\ell$	\ell	$\neg$	\neg	$\angle$	\angle
$\top$	\top	$\flat$	\flat	$\natural$	\natural	$\sharp$	\sharp
$\wp$	\wp	$\bot$	\bot	$\clubsuit$	\clubsuit	$\diamondsuit$	\diamondsuit
$\heartsuit$	\heartsuit	$\spadesuit$	\spadesuit				

The content in this chapter is sourced from: [https://nl.wikibooks.org/wiki/LaTeX/Wiskundige\\_formules](https://nl.wikibooks.org/wiki/LaTeX/Wiskundige_formules). While we have tested various elements, we cannot guarantee that all of them function as intended.

♡Equation Master Pro♡

