

LaTeX Math in Markdown

UCLI Tools

May 02, 2025

This document demonstrates how to use LaTeX math equations in Markdown.

0.1 Inline Math Equations

You can include inline equations like this: $E = mc^2$ or $(F = ma)$ within your text.

0.2 Display Math Equations

For standalone equations, use double dollar signs:

$$\int_a^b f(x) dx = F(b) - F(a)$$

Or use the equation environment:

$$\frac{d}{dx} \left(\int_a^x f(t) dt \right) = f(x) \tag{1}$$

0.3 Matrix Example

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} ax + by \\ cx + dy \end{pmatrix}$$

0.4 Aligned Equations

$$a = b + c \tag{2}$$

$$= d + e + f \tag{3}$$

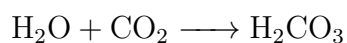
$$= g + h \tag{4}$$

0.5 Fractions and Summations

$$\sum_{i=1}^n \frac{1}{i^2} = \frac{\pi^2}{6}$$

0.6 Chemical Equations

If you have the mhchem package included:



0.7 Greek Letters

Alpha: α , Beta: β , Gamma: γ , Delta: δ , Epsilon: ϵ

0.8 Theorem Environment

Theorem 1. *For a right triangle with sides a , b and hypotenuse c :*

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

0.9 Proof Environment

Proof. This is a proof of the Pythagorean theorem. □

1 Regular Markdown Features

- Bullet points
- Work normally

1. Numbered lists
2. Also work

Bold text and *italic text* are supported.

Blockquotes work as expected.

Tables work too:

Column 1	Column 2	Column 3
Cell 1	Cell 2	Cell 3
Cell 4	Cell 5	Cell 6

Code blocks are supported:

```
def hello_world(): print("Hello, world!")
```