

Math Examples

This is a list of formula types that Pencil Note currently supports in LaTeX notation:

- Simple algebraic equations
- Fractions and continued fractions
- Exponents and subscripts
- Trigonometric formulae
- Square roots and n-th roots
- Calculus symbols - limits, derivatives, integrals
- Big operators (e.g. product, sum)
- Big delimiters (using `\left` and `\right`)
- Greek alphabet
- Combinatorics (`\binom`, `\choose` etc.)
- Geometry symbols (e.g. angle, congruence etc.)
- Ratios, proportions, percents
- Math spacing
- Overline and underline
- Math accents
- Matrices
- Equation alignment
- Change bold, roman, caligraphic and other font styles (`\bf`, `\text`, etc.)
- Most commonly used math symbols
- Colors

Tap any of the following equations to edit them:

$$(a_1 + a_2)^2 = a_1^2 + 2a_1a_2 + a_2^2$$

$$\neg(P \wedge Q) \iff (\neg P) \vee (\neg Q)$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\log_b(x) = \frac{\log_a(x)}{\log_a(b)}$$

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$$

$$\cos(\theta + \varphi) = \cos(\theta) \cos(\varphi) - \sin(\theta) \sin(\varphi)$$

$$\begin{aligned}\dot{x} &= \sigma(y-x) \\ \dot{y} &= \rho x - y - xz \\ \dot{z} &= -\beta z + xy''\end{aligned}$$

$$\vec{\mathbf{V}}_1 \times \vec{\mathbf{V}}_2 = \begin{vmatrix} \hat{i} & \hat{j} & \hat{k} \\ \frac{\partial X}{\partial u} & \frac{\partial Y}{\partial u} & 0 \\ \frac{\partial X}{\partial v} & \frac{\partial Y}{\partial v} & 0 \end{vmatrix}$$

$$\nabla\cdot\vec{\mathbf{E}}=\frac{\rho}{\varepsilon_0}$$

$$\nabla\cdot\vec{\mathbf{B}}=0$$

$$\nabla\times\vec{\mathbf{E}}=-\frac{\partial\vec{\mathbf{B}}}{\partial t}$$

$$f(x)=\left\{\begin{array}{ll}\frac{e^x}{2} & x\geq 0 \\ 1 & x<0\end{array}\right.$$

$$\nabla\times\vec{\mathbf{B}}=\mu_0\vec{\mathbf{J}}+\mu_0\varepsilon_0\frac{\partial\vec{\mathbf{E}}}{\partial t}$$

Supported matrix environments: matrix, pmatrix, bmatrix, Bmatrix, vmatrix, Vmatrix.

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} \begin{pmatrix} \alpha & \beta \\ \gamma & \delta \end{pmatrix} = \begin{pmatrix} a\alpha + b\gamma & a\beta + b\delta \\ c\alpha + d\gamma & c\beta + d\delta \end{pmatrix}$$

Splitting long equations with \\

$$\begin{aligned}\mathfrak{Q}(\lambda,\hat{\lambda}) = & -\frac{1}{2}\mathbb{P}(O\mid \lambda)\sum_s\sum_m\sum_t\gamma_m^{(s)}(t)+\\ & \left(\log(2\pi)+\log\left|\mathcal{C}_m^{(s)}\right|+\left(o_t-\hat{\mu}_m^{(s)}\right)^T\mathcal{C}_m^{(s)-1}\right)\end{aligned}$$