

# MathJax

MathJax is a cross-browser JavaScript library that displays mathematical equations in web browsers, using LaTeX markup and MathML markup. MathJax is released as open-source software under the Apache license."

Source: <http://en.wikipedia.org/wiki/MathJax>

# Tiki20+

Native support was added via <https://sourceforge.net/p/tikiwiki/code/68624> and should appear here:  
<https://packages.tiki.org/>

# Before TikiÂ 20

Add the following line to tiki-admin.php -> Look and Feel -> Custom HTML

Content:

**To include in all pages**

**To include only in one page (choose your own page name)**

```
{if $page eq 'MathJax'} {/if}
```

The other possibility (working in http and https) is to install (copy) the MathJax locally

as described at: <http://docs.mathjax.org/en/latest/installation.html>

for example to `./add_mathjax` directory

and add to tiki-admin.php -> Look and Feel -> Custom HTML

Content:

**For local instalation**

Then, just use math in your page using PluginHTML. It will sometimes work without that but there can be conflicts with wiki syntax or other code. [Click here](#) to see the source of the current wiki page for an example.

**Nice presentation won't load just after you save a page. So after saving, go to another page, and click back to your page**

Below are math samples copied from <http://www.mathjax.org/demos/tex-samples/>. Right-click on the formulae for more options.

# The Lorenz Equations

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

# The Cauchy-Schwarz Inequality

$$\left[ \left( \sum_{k=1}^n a_k b_k \right)^2 \leq \left( \sum_{k=1}^n a_k^2 \right) \left( \sum_{k=1}^n b_k^2 \right) \right]$$

# A Cross Product Formula

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

The probability of getting  $(k)$  heads when flipping  $(n)$  coins is

$$P(E) = \binom{n}{k} p^k (1-p)^{n-k}$$

# An Identity of Ramanujan

$$\frac{1}{\sqrt{5} - \phi} e^{\frac{25}{\pi}} = \frac{e^{-2\pi}}{1 + \frac{e^{-4\pi}}{1 + \frac{e^{-6\pi}}{1 + \frac{e^{-8\pi}}{1 + \dots}}}}$$

# A Rogers-Ramanujan Identity

$$\left[ 1 + \frac{q^2}{(1-q)} + \frac{q^6}{(1-q)(1-q^2)} + \cdots = \prod_{j=0}^{\infty} \frac{1}{(1-q^{5j+2})(1-q^{5j+3})} \right], \quad \text{for } |q| < 1.$$

# Maxwell's Equations

$$\begin{aligned} \nabla \times \vec{\mathbf{B}} - \frac{1}{c} \frac{\partial \vec{\mathbf{E}}}{\partial t} &= \frac{4\pi}{c} \vec{\mathbf{j}} \\ \nabla \cdot \vec{\mathbf{E}} &= 4\pi \rho \\ \nabla \times \vec{\mathbf{E}} + \frac{1}{c} \frac{\partial \vec{\mathbf{B}}}{\partial t} &= \vec{\mathbf{0}} \\ \nabla \cdot \vec{\mathbf{B}} &= 0 \end{aligned}$$

# Related links

- <https://groups.google.com/forum/?fromgroups=#!topic/mathjax-users/-AP8s7AVpLo>