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Beautiful math in all browsers

TeX Samples

The following equations are represented in the HTML source code as LaTeX expressions.

The Lorenz Equations

$$egin{aligned} \dot{x} &= \sigma(y-x) \ \dot{y} &=
ho x - y - xz \ \dot{z} &= -eta z + xy \end{aligned}$$

The Cauchy-Schwarz Inequality

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

A Cross Product Formula

$$\mathbf{V}_1 imes \mathbf{V}_2 = egin{bmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \ rac{\partial X}{\partial u} & rac{\partial Y}{\partial u} & 0 \ rac{\partial X}{\partial v} & rac{\partial Y}{\partial v} & 0 \ \end{cases}$$

The probability of getting k heads when flipping n coins is

$$P(E) = inom{n}{k} p^k {\left(1-p
ight)}^{n-k}$$

An Identity of Ramanujan

$$rac{1}{\left(\sqrt{\phi\sqrt{5}}-\phi
ight)e^{rac{2}{5}\pi}}=1+rac{e^{-2\pi}}{1+rac{e^{-4\pi}}{1+rac{e^{-6\pi}}{1+rac{e^{-8\pi}}{1+\dots}}}}$$

A Rogers-Ramanujan Identity

$$1+rac{q^2}{(1-q)}+rac{q^6}{(1-q)(1-q^2)}+\cdots=\prod_{j=0}^\inftyrac{1}{(1-q^{5j+2})(1-q^{5j+3})}\,,\qquad ext{for }|q|<1.$$

Maxwell's Equations

1 of 2

$$abla imes ec{\mathbf{B}} - rac{1}{c} rac{\partial ec{\mathbf{E}}}{\partial t} = rac{4\pi}{c} ec{\mathbf{j}}$$
 $abla \cdot ec{\mathbf{E}} = 4\pi
ho$
 $abla \cdot ec{\mathbf{E}} = 0$

Finally, while display equations look good for a page of samples, the ability to mix math and text in a paragraph is also important. This expression $\sqrt{3x-1} + (1+x)^2$ is an example of an inline equation. As you see, MathJax equations can be used this way as well, without unduly disturbing the spacing between lines.

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