Brief Article

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1 Colour

$\mathbb{C} = \{$■, ■, ■$\}$
$\mathbb{C}' = \{$■, ■, ■$\}$

2 Mathematical Equations

Learning latex maths markup.

●
■
$\cos x = 0 \Leftrightarrow x \in \{(n+\frac{1}{2})\pi : n \in \mathbb{Z}\}$
$\left[\frac{(\frac{x+3}{7})+5}{3x+8}\right]$
$x_1 = y^2 = z_1^4$
x_{ijk}
$\left(\frac{n+2}{3}\right)$
$\left\{\frac{n^2+n}{n^2-n}\right\}$
$\in, \infty, \exists, \forall, \Rightarrow, \leftrightarrow, \pi, \sum, \int$
$f(x) = \int_{-\infty}^{x} \frac{(e^{-t^2})}{\sqrt{\pi^x}} dt$
$\mathcal{P}(X)$
$M^2 = \begin{pmatrix} M_{11}^2 & M_{18}^2 \\ M_{18}^2 & M_{88}^2 \end{pmatrix}$
$f(x) = \sqrt{1+x} \quad (x \geq -1) f(x) = \sqrt{1+x}, \quad x \geq -1 f(x) \sim x^2 \quad (x \to \infty) f(x) \sim x^2, \quad x \to \infty$

Simple equations, like x^y or $x_n = \sqrt{a+b}$ can be typeset right in the text line by enclosing them in a pair of single dollar sign symbols. Don't forget that if you want a real dollar sign in your text, like \$2000, you have to use the `\$` command.

A more complicated equation should be typeset in *displayed math* mode, like this:

$$z \left(1 \ + \ \sqrt{\omega_{i+1} + \zeta - \frac{x+1}{\Theta+1} y + 1} \right) \quad = \quad 1$$

The "equation" environment displays your equations, and automatically numbers them consecutively within your document, like this:

$$\left[\mathbf{X} + \mathrm{a} \ \geq \ \hat{\underline{a}} \sum_{i}^{N} \lim_{x \to k} \delta C \right] \tag{1}$$

$$\sum \neq \sum$$

and $\frac{1}{2} \neq \frac{1}{2}$ but $N = N$

$$\sum_{i=1}^{n} \neq \sum_{i=1}^{n} \neq \sum_{i=1}^{n} \qquad \int_{0}^{\infty} \neq \int_{0}^{\infty} \neq \int_{0}^{\infty}$$

$$a \times b \neq a \times b \neq a \times b$$