Samples Pages typeset using LaTeX 2ε

The following equations and tables are only samples, they do not make any mathematical sense.

$$\prod_1^n G_i = \sum_1^n (G_{i+2} - G_{i+1}) = \sum_1^n G_{i+2} - \sum_1^n G_{i+1} \\ = G_{n+2} - b$$

Since the two cases are mutually exclusive, by the addition principle, we have:

$$\begin{array}{lll} a_1 = 2, \quad a_2 = 3 & & \leftarrow r \neq 0 \\ a_n = a_{n-1} + a_{n-2}, & n \geq 3 & \leftarrow t_0 \propto 0 \end{array}$$

$$\frac{0}{1} \quad \underbrace{- - - \cdots - -}_{n-3 \text{ bits}} \quad \frac{0}{n-1} \quad \frac{1}{n}$$

These tokens feed a pretty-printer. So, the same scanner is composed both with a search engine and a pretty-printer. TeX processes hundreds of definitions in a few seconds, thanks to the fast scanner.

$$\int_{\substack{t-y \\ \infty}}^{\substack{\infty \\ \eta\pi}} \frac{\sqrt[3]{\frac{1}{16} R + \mathbf{H}}}{\sqrt[n]{q r_n + 1}} + \sum_{\substack{[x-y-z] \\ x \to z \\ \infty}}^{\substack{\infty \\ n \to m \\ (a+n+m)}} \frac{\left\{ \frac{L^n + \varepsilon t}{z} \right\}_{m^m + n^n}^{n_n}}{1y - \left\{ \frac{T_4}{x-y} \right\}} \tag{1}$$

This is a sample for Inline Math and also Bold Face Math formulae $\boldsymbol{(x+y)\int_{x=a_a}^{b} 2\pi(y+\frac{1}{2}\delta y)\sqrt{(\delta x)^2 + (\delta y)^2}}$.

$$\begin{cases} \int_1^n G_{2i} & = \sum_1^{2n} G_i - \sum_1^n G_{2i-1} \\ & = G_{2n+2} - G_{2n} - a = G_{2n+1} - a \\ \sum_1^{10} G_{k+i} & = \sum_1^{10} (aF_{k+i-2} + bF_{k+i-1}) \\ & = a \prod_1^{10} F_{k+i-2} + b \biguplus_1^{10} F_{k+i-1} \end{cases}$$

Table 1: Another wide table. Numbers in columns Three–Five have been aligned by using the "d" column specifier. Non-numeric entries (those entries without a ".") are centered in "d" columns.

One	Two	Three	Four	Five
one	two	three	four	five
He	2	2.77234	45672.	0.69
	C	12537.64	37.66345	86.37

LaTeX 2ε is much easier than the original Plain TeX on which it is based.[1] It contains more provisions for automatic equation numbering (which has been used in our samples).

$$\begin{aligned} \sum_1^{n-1} S_i &= \sum_1^{n-1} G_{i+2} - (n-1)b \\ &= S_{n+1} - (G_1 + G_2) - (n-1)b \\ &= S_{n+1} - a - nb = G_{n+3} - a - (n+1)b \\ \sum_1^n iG_i &= \sum_1^n G_i + \sum_2^n G_i + \sum_3^n G_i + \cdots + \sum_n^n G_i \\ &= S_n + (S_n - S_1) + (S_n - S_2) + (S_n - S_{n-1}) \\ &= nS_n - \sum_1^{n-1} S_i \\ &= n(G_{n+2} - b) - [G_{n+3} - a - (n+1)b] \\ &= nG_{n+2} - G_{n+3} + a + b \end{aligned}$$

$$b^0 + \cfrac{a^1}{b_1 + \cfrac{a^2}{b_2 + \frac{a^3}{b_3}}} \tag{2}$$

$$\mathfrak{F} = -\begin{pmatrix} \sum_{i=0}^{k_1-1} (\alpha_i e_i - h\beta_i \delta f_i) \\ \sum_{i=0}^{k_1-2} (\alpha_i e_{i+1} - h\beta_i \delta f_{i+1}) \\ \vdots \\ \left(\alpha_0 e_{k_1-1} - h\beta_0 \delta f_{k_1-1}\right) \\ 0 \\ \vdots \\ 0 \\ (\alpha_k e_N - h\beta_k \delta f_N) \\ \sum_{i=k-1}^{k} (\alpha_i e_{N+1-k+i} - h\beta_i \delta f) \\ \vdots \\ \sum_{i=k_1+1}^{k} \left(\alpha_i e_{N-1-k_1+i} - h\beta_i \delta f\right) \end{pmatrix}. \tag{3}$$

$$\begin{aligned} \mathcal{M} = {} & i g_Z^2 (4E_1 E_2)^{1/2} (l_i^2)^{-1} \delta_{\sigma_1, -\sigma_2} (g_{\sigma_2}^e)^2 \chi_{-\sigma_2}(p_2) \\ & \times [\epsilon_j l_i \epsilon_i]_{\sigma_1} \chi_{\sigma_1}(p_1), \end{aligned} \tag{4}$$

$$\frac{\overbrace{\sqrt[ab]{\frac{40^2 + 50b^2}{70 - 80}} + \int_{\sum^{45}}^{\sqrt{b^2}}} + \overbrace{\frac{80 + 75}{40}}}{\underbrace{{}_7^A \prod_7^8 {}_5^4 + \oint_{bc}^{bc}}} \tag{5}$$

[1] All the above equations and tables do not make any mathematical sense.