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Italics correction and kerning: 
$$(F^n)(F) = \left(G\frac{Mm}{R^2}\right)^{n+1}$$
, Big math:  $\left(\frac{\left(\frac{A}{B}+C\right)}{D^{(n-1)}}\right)$ , parentheses:  $\left(\left((A)+B\right)+C\right)$ ,  $\left\{\left\{\{A\}+B\right\}+C\right\}$ , radical:  $2\sqrt{3}+\frac{2}{\sqrt{5}}+\frac{1}{\sqrt{x^2+1}}$ . The solution of the equation  $ax^2+bx+c=0$  as to  $x$  is  $x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$ . Multiplex radicals:  $\sqrt{\sqrt{\sqrt{\sqrt{2}}}}$ , limits:  $\lim_{n\to\infty}\left(1+\frac{1}{n}\right)^n=e$ , fraction superscript:  $e^{\frac{x}{2}}$ , sub-superscript:  $a_{n-1}^2b$ , sub-superscript correction:  $a_1^{\frac{n}{2}}$ ,  $f_1^2$ , big operator:  $\sum_{n=1}^\infty\frac{1}{n^2}=\frac{\pi^2}{6}$ , integral:  $\int_0^1\sqrt{1-x^2}\,\mathrm{d}x$ , texts contained in formulae:  $\frac{\mathrm{Hoge}}{2}+\sqrt{\mathrm{Piyo}}$ , tuple:  $\langle x,y,z\rangle$ .

$$\frac{\int_0^a x \, dx \int_0^{\sqrt{a^2 - x^2}} r \sqrt{x^2 + r^2} \, dr}{\int_0^a dx \int_0^{\sqrt{a^2 - x^2}} r \sqrt{x^2 + r^2} \, dr} = \frac{2a}{5}$$

Script:  $\mathcal{ABCMNOPQRXYZ}$ , bold script:  $\mathcal{ABCMNOPQRXYZ}$ , Fraktur:  $\mathfrak{ABCMNOPQRXYZ}$  obecomnormal of the struck:  $\mathfrak{ABCMNOPQRXYZ}$  obecomnormal of the struck:  $\mathfrak{ABCMNOPQRXYZ}$ 

Typing rule is defined as follows:

$$\frac{\left(\Gamma(x) \equiv \tau\right)}{\Gamma \vdash x : \tau} \frac{\Gamma[x \mapsto \tau_1] \vdash M : \tau_2}{\Gamma \vdash \left(\lambda x : \tau_1 . M\right) : \tau_1 \to \tau_2}$$

$$\frac{\Gamma \vdash M : \tau_1 \to \tau_2 \qquad \Gamma \vdash N : \tau_1}{\Gamma \vdash MN : \tau_2}$$

$$\frac{A \qquad \frac{B \qquad C}{D}}{E}$$