



American Journal of Computational Mathematics

$$\begin{aligned} \lim_{n \rightarrow \infty} \frac{(\sqrt[n]{n+2})^2 - (\sqrt[n]{n})^2}{(\sqrt[n]{n+2})^2 + (\sqrt[n]{n+2})} &= \lim_{n \rightarrow \infty} \frac{\sum_{k=0}^n a_k 2^k}{\sum_{k=0}^n a_k 2^k} \quad (a_n \neq 0) \quad \lim_{n \rightarrow \infty} (\sqrt[n]{n+2} - \sqrt[n]{n}) \\ \left(1 + \frac{1}{[n]+1}\right)^{[n]+1} &< \left(1 + \frac{1}{n}\right)^{n+1} \quad a = \psi\left(\frac{1}{q}\right) = \left[\psi\left(\frac{1}{q}\right)\right]^q \\ \int_0^1 \pi f^2(x) dx &= \int_0^1 \pi \left(\frac{r}{h} x\right)^2 dx = \int_0^1 \frac{\pi r^2}{h^2} x^2 dx \int [u_1(x) + u_2(x) + \dots + u_n(x)] dx \\ \lim_{n \rightarrow \infty} x^3 \left[\frac{1}{3} + \frac{3^0}{x} + \frac{5}{x^2} + \frac{1}{x^3} \right] &= + \quad P_n(z_0) = \sum_{k=0}^n a_k z_0^k = 0 \quad \lim_{x \rightarrow +\infty} f(x) = \frac{1}{x} \\ \int f_j(x) dx + C &= \sum_{k=0}^n C_n^k a^{n-k} x^k \quad \int \left(\sum_{j=1}^n A_j f_j(x) \right) dx = \sum_{j=1}^n \int A_j f_j(x) dx \\ z^{n-2} + a^2 z^{n-3} + \dots + a^{n-1} & \quad I_1 = \int \frac{1}{x^2} dx \quad z^n - a^n = (z-a)(z^{n-1} + \dots + a^{n-1}) \\ a_0 + a_1 z + \dots + a_n z^n &= \sum_{k=0}^n a_k z^k \quad (a_n \neq 0) \quad P_n(z) = a_0 + a_1 z \quad P_n(z) \end{aligned}$$



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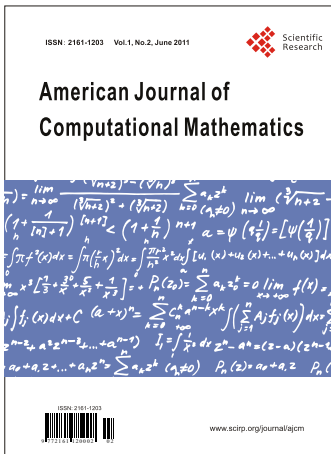
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