$$\frac{1}{\pi} = \frac{12}{\sqrt{640320^3}} \sum_{k=0}^{\infty} (-1)^k \frac{(6k)!}{(k!)^3(3k)!} \frac{13591409 + 545140134k}{(640320^3)^k}$$

$$\pi = \frac{2\,\mathrm{AGM}^2(1, \frac{1}{\sqrt{2}})}{\frac{1}{2} - \sum_{k=1}^{\infty} 2^k c_k^2}$$

$$\pi = \sum_{i=0}^{\infty} \frac{(i!)^2 2^{i+1}}{(2i+1)!}$$

$$\frac{\pi}{4} = 4 \arctan \frac{1}{5} - \arctan \frac{1}{239}$$

$$\frac{\pi}{4} = 44 \arctan \frac{1}{57} + 7 \arctan \frac{1}{239} - 12 \arctan \frac{1}{682} + 24 \arctan \frac{1}{12943}$$

$$\frac{2}{\pi} = \frac{\sqrt{2}}{2} \cdot \frac{\sqrt{2+\sqrt{2}}}{2} \cdot \frac{\sqrt{2+\sqrt{2+\sqrt{2}}}}{2} \cdots$$

$$V_{0,n} = \frac{2}{\sqrt{2}} \cdot \frac{2}{\sqrt{2+\sqrt{2}}} \cdot \frac{2}{\sqrt{2+\sqrt{2+\sqrt{2}}}} \cdots \approx \frac{\pi}{2}$$

$$V_{k,n} = \frac{4^k V_{k-1,n+1} - V_{k-1,n}}{4^k - 1}$$

$$C_k < \frac{1}{4-1} \frac{1}{4^2-1} \frac{1}{4^3-1} \cdots \frac{1}{4^k-1} \frac{\pi^{2k+3}}{2^{2k+3}(2k+3)!}$$