

1. Use brute force method to generate a series for f where $f(x) = \sqrt[3]{x+1}$ and use it to approximate $\sqrt[3]{2}$ accurate to 0.01 units.
2. Use what we know about a geometric series to generate a series for f where $\tan^{-1} x^2$ and use it to approximate $\tan^{-1} 4$ accurate to 0.01 units.
3. Approximate π to 0.01 units.
4. Approximate e^2 to your desired level of accuracy.