

numpy
scipy
matplotlib
 $f(x)$
 $N = \frac{\ln(b-a) - \ln(error)}{\ln 2}$

temp_1

$$f(x_n) = f(x_{n-1}) - \frac{f(x_{n-1})}{f'(x_{n-1})}$$

while

$$x_{n+1} = x_n - \frac{f(x_n)(x_n - x_{n-1})}{f(x_n) - f(x_{n-1})}$$