

# Chapter 2 Solutions of Equations in One Variable

## Fixed Point Iteration

Given an iteration mapping function  $g(x)$ , compute the fixed point iteration  $p_{n+1} = g(p_n)$  until  $|p_n - p_{n-1}| \leq \text{TOL}$ . Fixed point  $p$ , defined as  $p = g(p)$ , is the intersection of  $y = x$  and  $y = g(x)$ .

References:

- 【1】 R. L. Burden and J. D. Faires, *Numerical Analysis*, PWS, Boston, 1993.