FIXED POINT ITERATION

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ALGORITHM

1. Identify the function f(x)
2. Find points a and b such that a <b where f(a)<0 and f(b)>0
3. Select x0(initial guess) by getting average of a and b

$$\frac{a+b}{2} = x0$$

4. Define function g(x) which is obtained from f(x)=0 such that x=g(x) and $|g'(x) < 1|$
5. Calculate x1 such that $x1 = g(x0)$, $x2 = g(x1)$, x3...xn.
6. Repeat the above till

$$f(x_i) - f(x_{i-1}) = 0$$

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7. The root will be at xn.