Fixed Point Method

$$\boxed{x = g(x)} \longleftarrow$$

We want to solve $f(x) = 0$

Yea! $\qquad f(x) = 0$

$$\Rightarrow x + f(x) = x$$

$$\boxed{g(x) = x}$$

$$\boxed{r = g(r)}$$

$$|x_n - x_{n+1}| < TOL$$

$$|g(x_n) - x_n| < TOL$$

$x = x_0$ initial guess

$$x_1 = g(x_0)$$

$$x_2 = g(x_1)$$

$$x_{n+1} = g(x_n) \quad \downarrow$$