

2.0  $x_{n+1} = \frac{12}{1+x_n}, \alpha = 3$

$$g'(x) = \frac{dg(x)}{dx} = -\frac{12}{(1+x)^2}$$

$$|g'(\alpha)| = \frac{12}{16} \left\{ \begin{array}{l} < 1 \\ \neq 0 \end{array} \right\} \text{ LINEAR CONVERGENCE}$$