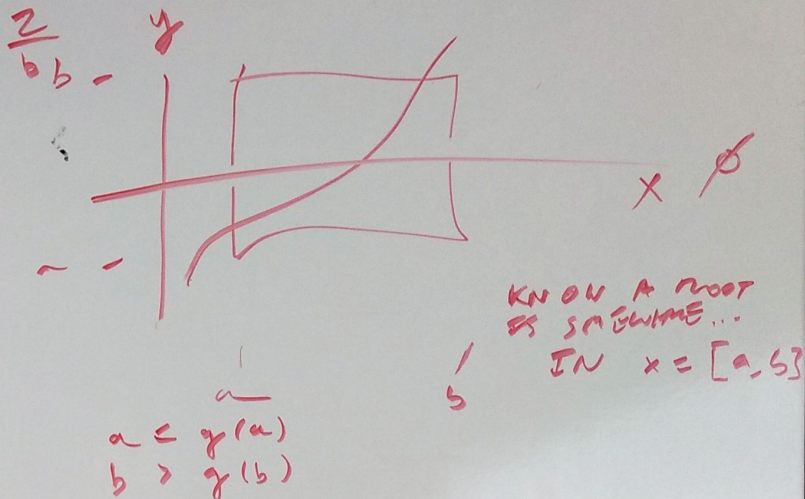


## HW 2

RATE OF CONVERGENCE  
IS THE CHANGE IN  
ERROR PER ITERATION



INTRODUCE

$$h(x) = x - g(x)$$

NOW  $h(x)$  IS CONTINUOUS SINCE  $g(x)$   
IS CONTINUOUS

BY IVT THERE IS

$$\alpha \in (a, b)$$

SUCH THAT

$$h(\alpha) = 0 \rightarrow \text{so, } \rightarrow h(\alpha) = \alpha - g(\alpha) = 0$$