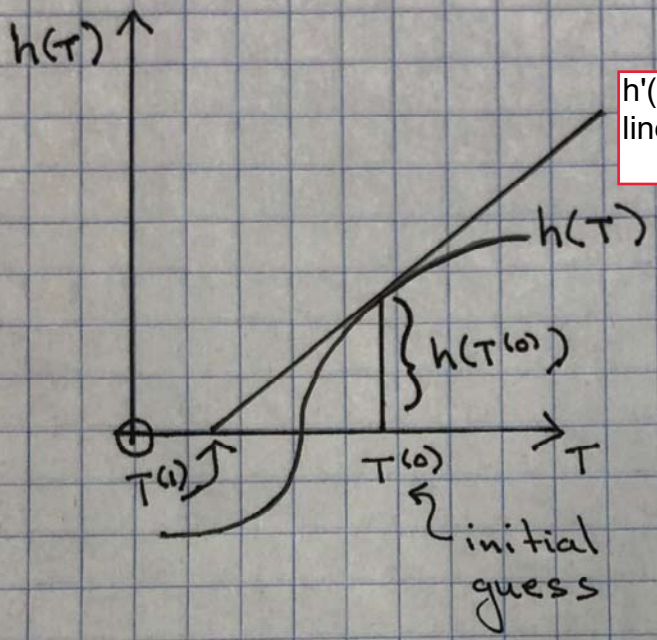
Newton-Raphson Technique

Find the 0's of a function, that is, find T^* such that $h(T^*) = 0$ where $h(x)$ is a real-valued function.



$$h'(T^{(0)}) = \frac{\Delta h(T^{(0)})}{\Delta T} = \left[\frac{\Delta y}{\Delta x}\right] = \frac{h(T^{(0)})}{(T^{(0)} - T^{(1)})}$$

Solve for $T^{(1)}$ $\quad T^{(1)} = T^{(0)} - \dfrac{h(T^{(0)})}{h'(T^{(0)})}$

In general, $\quad T^{(K+1)} = T^{(K)} - \dfrac{h(T^{(K)})}{h'(T^{(K)})}$

Proceed iteratively until $\left| T^{(K+1)} - T^{(K)} \right|$ is small.