



initial value: $\dot{x}(0)$

$x(0)$

$$f(h) = h^2$$

$$\frac{f(h)}{h} = \frac{h^2}{h} = h$$

$$\lim_{h \rightarrow 0} \frac{f(h)}{h} = \lim_{h \rightarrow 0} h = 0$$

$$\lim_{h \rightarrow 0} \frac{\sin(h)}{h} \rightarrow$$

$$(e^{-\lambda h})' = -\lambda e^{-\lambda h}$$