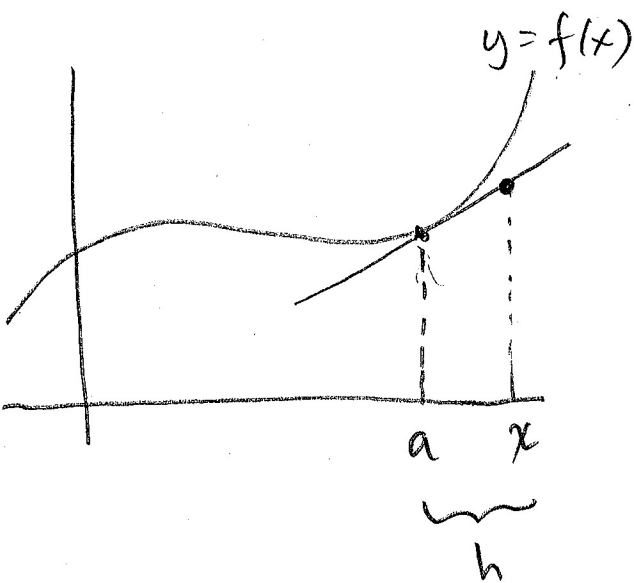
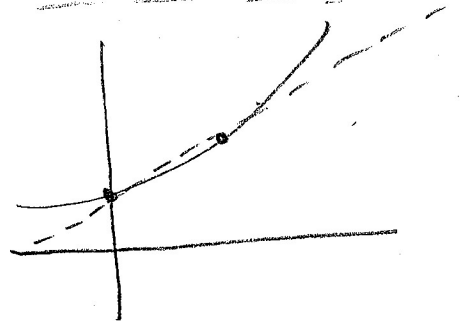


FUNDAMENTAL  
THEOREM OF CALCULUS

Tangents intersect a curve at ONE point. So we need a limit of secant slopes.



Slope of tangent line at  $a$  is  $f'(a)$ .

$$f'(a) = \lim_{x \rightarrow a} \frac{f(x) - f(a)}{x - a}$$

$$f'(a) = \lim_{h \rightarrow 0} \frac{f(a+h) - f(a)}{h}$$