The Limit Definition of Derivative
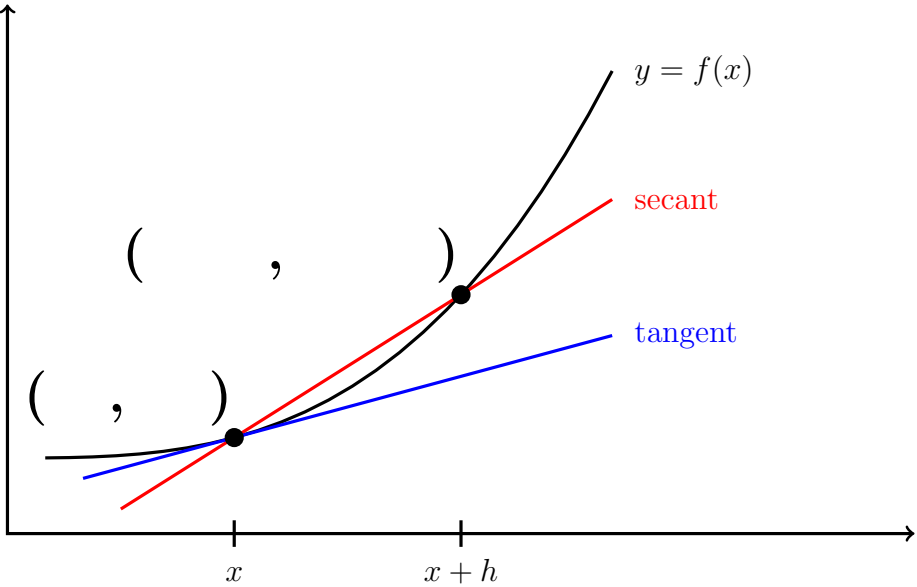
Suppose the height of a ball is a function of time $y = f(x)$.
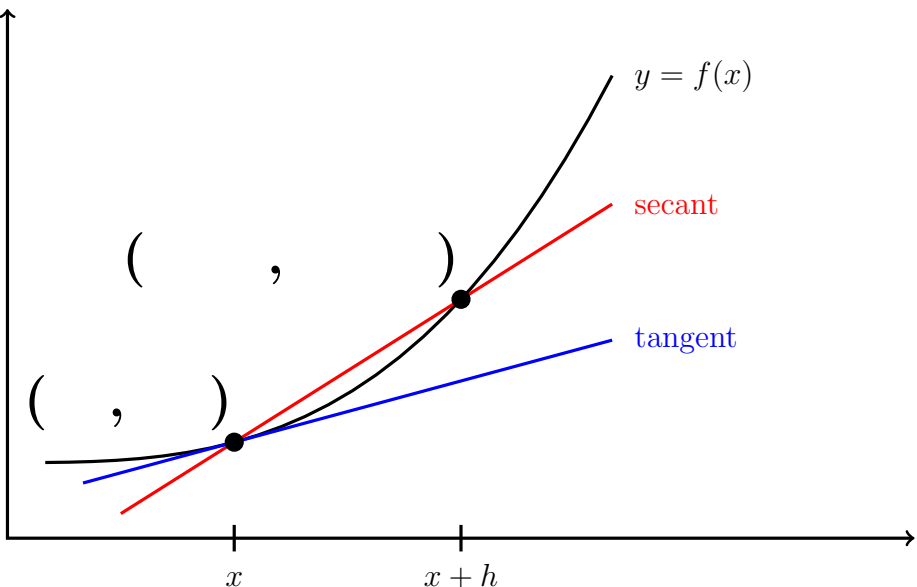

$\frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} =$

$\underline{\hspace{4cm}} = \frac{\text{slope of}}{\text{secant}} = \frac{\text{difference}}{\text{quotient}} = \frac{\text{average}}{\text{rate of}}_{\text{change}} = \frac{\text{average}}{\text{velocity}}$

$\lim_{h \to} \underline{\hspace{3cm}} = \frac{\text{slope of}}{\text{tangent}} = \text{derivative} = \frac{\text{rate of}}{\text{change}} = \text{velocity}$