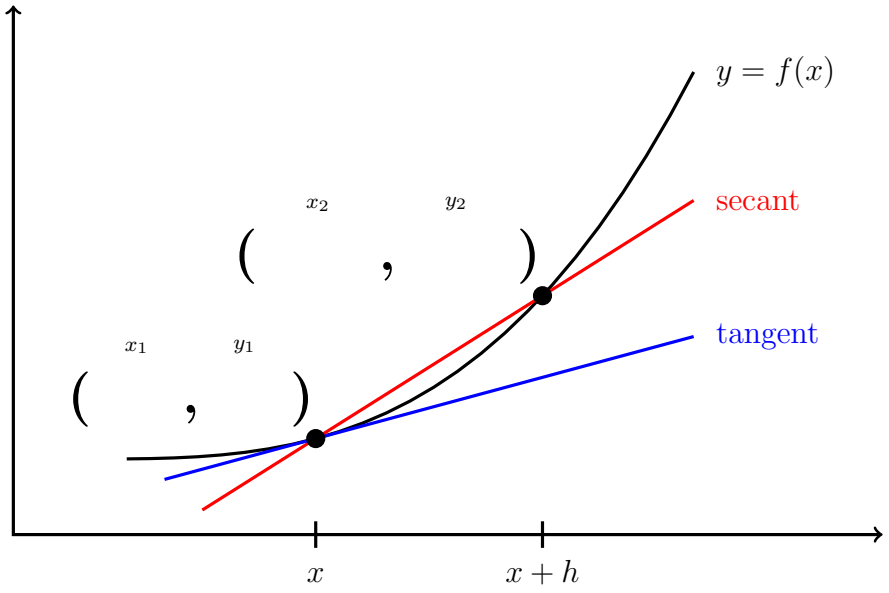
5 Minute Mini-Lesson

The Limit Definition of Derivative

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



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

$\_\_\_\_\_ = \text{slope of secant} = \text{difference quotient} = \text{average rate of change} = \text{average velocity}$

$\lim_{h \to} \_\_\_\_\_ = \text{slope of tangent} = \text{derivative} = \text{rate of change} = \text{velocity}$

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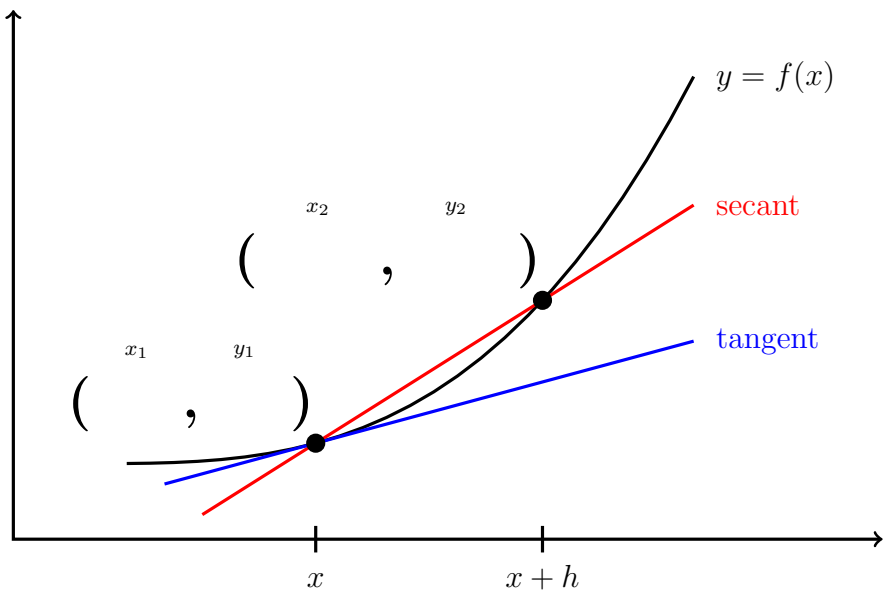

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