$$p_{1} - p_{0} = \vec{v}$$

$$p_{1} = p_{0} + \vec{v}$$

$$p_{0} = (x_{0}, y_{0}, z_{0})$$

$$p_{1} = (x_{1}, y_{1}, z_{1})$$

$$p_{1} = (x_{0}, y_{0}, z_{0}) + \vec{v}$$

$$p = (1 - t)p_{0} + tp_{1}$$

$$f'(x_{0}) = \frac{y - y_{0}}{x - x_{0}}$$

$$(x - x_{0}) = \frac{y - y_{0}}{f'(x_{0})}$$

$$x = x_{0} - \frac{y_{0}}{f'(x_{0})}$$

$$x = x_{0} - \frac{f(x_{0})}{f'(x_{0})}$$

$$y - y_{0} = f'(x_{0})(x - x_{0}) + y_{0}$$

$$y = f'(x_{0})(x - x_{0}) + f(x_{0})$$

$$(x_{0} = 0, f(x_{0}))(x_{1} = 1, f'(0)(1 - 0) + f(0))$$

$$(0, 0)(1, 0)$$

$$f'(1) = 2$$

$$y = 2(x - 1) + 1$$

$$x = 1$$

$$y = 1$$

$$x = 2$$

$$y = 3$$

$$f'(x) = \lim_{h \to 0} \frac{f(x + h) - f(x)}{h}$$

this is nice