

# Partial Derivatives

$$\left. \frac{\partial f}{\partial x} \right|_{x_0, y_0} = \lim_{h \rightarrow 0} \frac{f(x_0 + h, y_0) - f(x_0, y_0)}{h}$$

Basically the derivative of the variable you are differentiating with respect to and treat all the other variables as constants.