

$$1. \nabla w = \langle x', y' \rangle \rightarrow \text{Slope} = \frac{y'}{x'}$$

$$w = c$$

$$\Rightarrow \frac{dw}{dt} = \frac{dw}{dx} \frac{dx}{dt} + \frac{dw}{dy} \frac{dy}{dt}$$

$$= 0 \Rightarrow \frac{dy}{dx} = - \frac{\partial w / \partial x}{\partial w / \partial y}$$