

$$f(x) + \nabla f(x)^T (y-x)$$

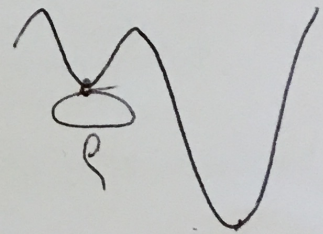
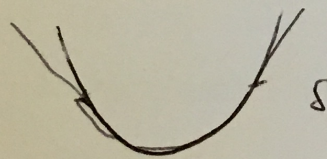
-ve +ve

$$[\nabla^2 f(x)]_{ij} = \frac{\partial^2 f(x)}{\partial x_j \partial x_i}$$

$$f(tx + (1-t)y) \leq tf(x) + (1-t)f(y)$$

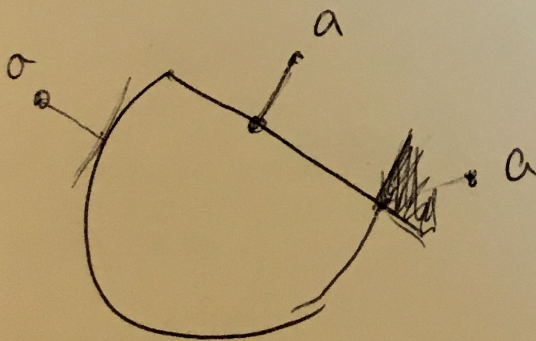
$$f(\text{arg}) \leq \text{arg}(f)$$

$g(x,y)$



$$N_c(x) = \{g : g^T(y-x) \leq 0\}$$

$\forall y \in C$



$$\epsilon_i \geq 0$$

$$\epsilon_i \geq 1 - y_i (x_i^T \beta + \beta_0)$$