

x CAPA / y PKG

$$y = mx + b$$

$$y = \text{pkg}$$

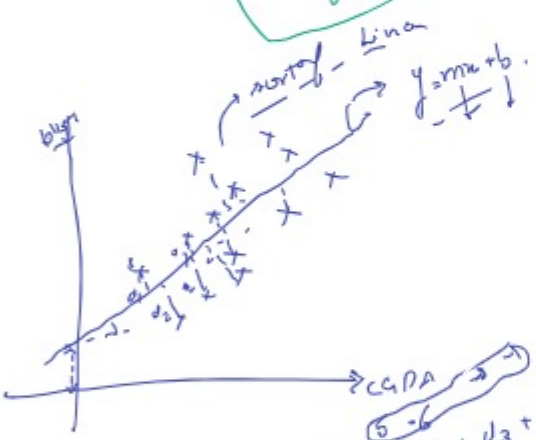


CFS
 OLS

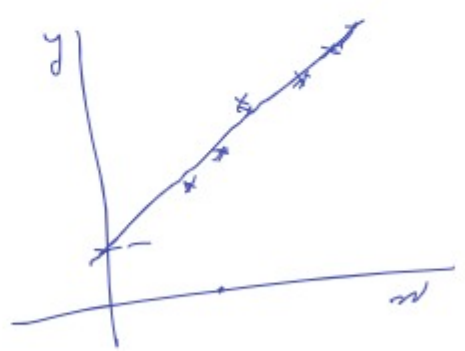
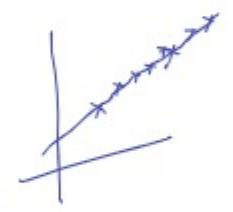
LRU

$$b = \bar{y} - m\bar{x}$$

$$m = \frac{\sum_{i=0}^n (y_i - \bar{y})(x_i - \bar{x})}{\sum_{i=0}^n (x_i - \bar{x})^2}$$



x	y
CAPA	PKG
5.6	2



$$d_1^2 + d_2^2 + d_3^2 + \dots + d_n^2$$

$$E = d_1^2 + d_2^2 + d_3^2 + \dots + d_n^2$$

$$E = \sum_{i=0}^n d_i^2$$

$$d_i = y_i - \hat{y}_i$$

$$E = \sum_{i=0}^n (y_i - \hat{y}_i)^2$$

minimum

$$\begin{cases} b = ? \\ m = ? \end{cases}$$

$$\hat{y}_i = mx_i + b$$

$$f(b) \rightarrow y = f(x)$$

$$E(m, b) = \sum_{i=0}^n (y_i - (mx_i + b))^2$$

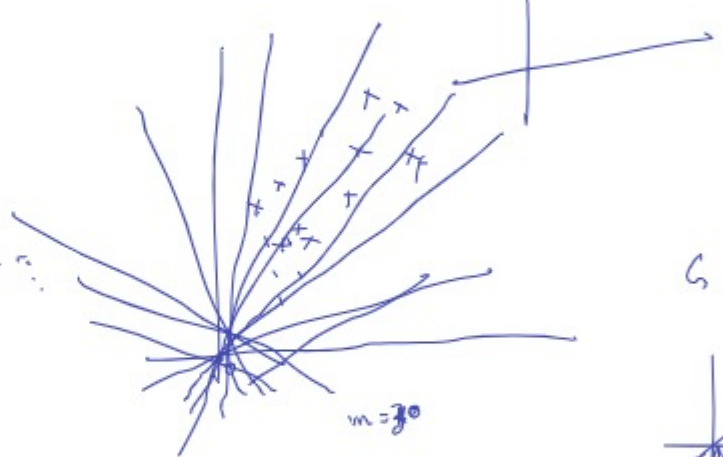
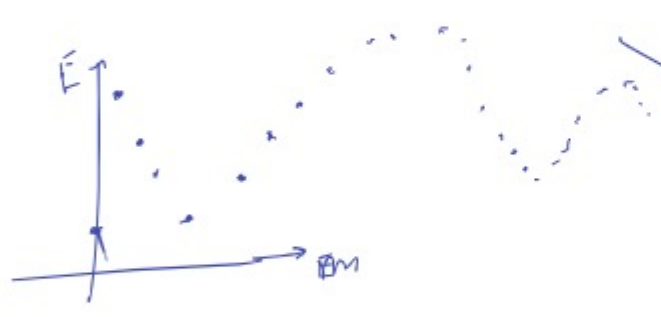
$$E(m, b) = \sum_{i=0}^n (y_i - mx_i - b)^2$$

Error function

gradient Descent

$$0 \rightarrow 3.60$$

$$b = 0 \rightarrow E(m) = \sum_{i=0}^n (y_i - mx_i)^2$$



$$E(b) = \sum_{i=0}^n (y_i - b)^2$$

$$m = ? \rightarrow b = ?$$

