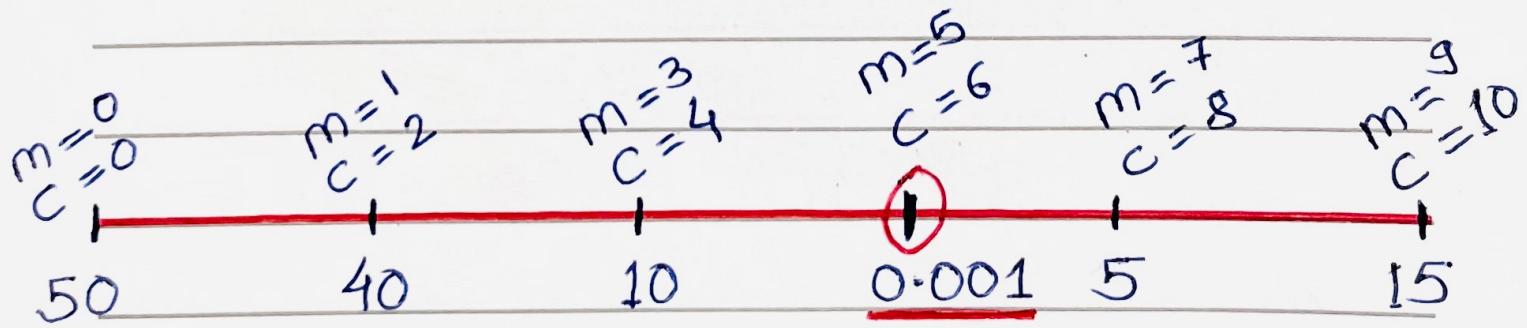


$$MSE = \frac{1}{n} \sum_{i=1}^n (y_i - y_p)^2$$

$$y_p = mx + c$$

$$\rightarrow MSE = \frac{1}{n} \sum_{i=1}^n (y_p - (mx_i + c))^2$$



$$md = \frac{2}{n} \sum_{i=1}^n -x_i^o(y_i^o - (mx_i^o + c))$$

$$cd = \frac{2}{n} \sum_{i=1}^n -(y_i^o - (mx_i^o + c))$$

$$\begin{aligned} m &= m - LR * md \\ c &= c - LR * cd \end{aligned} \quad \left. \right\}$$