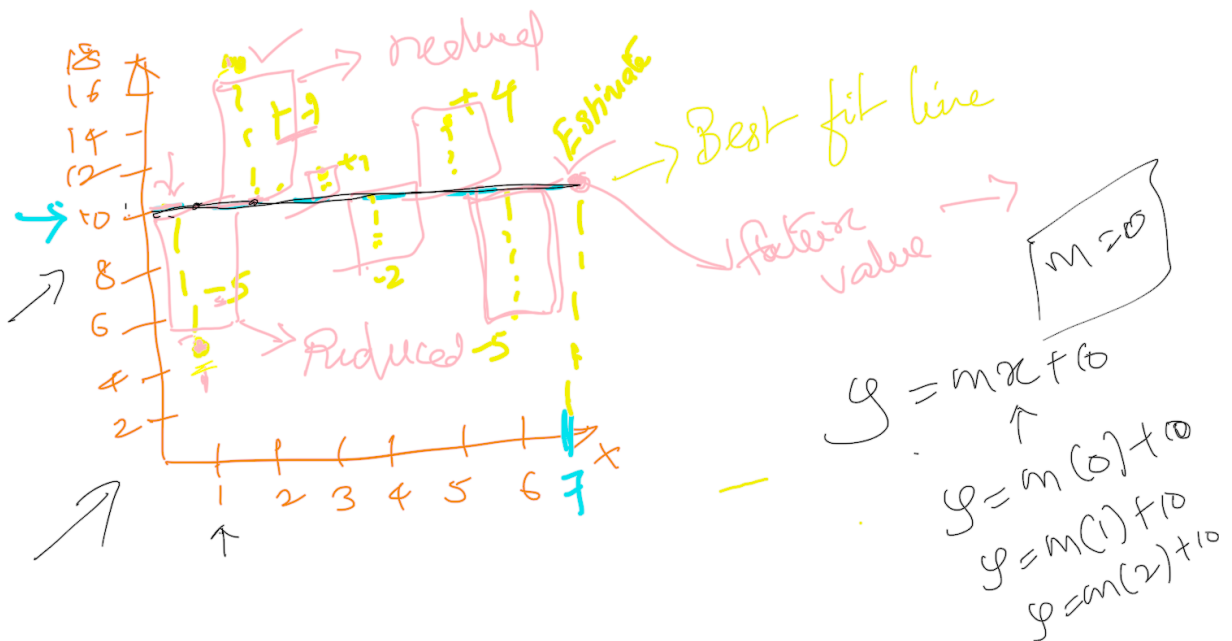


Restaurant - Waiter → Keen tips

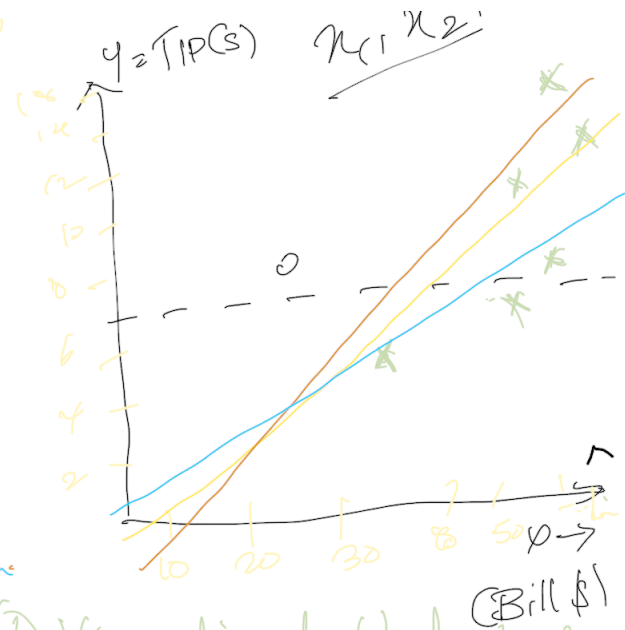
Meal #  $y = \text{TIP (\$)}$  → Tip ① VISUALIZE

1	5.00
2	17.00
3	11.00
4	8.00
5	14.00
6	5.00
7	Mean = 10



$\sqrt{\text{Bill}(\$)} \times \text{TIP}(\$)$

INDEPENDENT	DEPENDENT
34	5
108.00	17
64.00	11
88.00	8
99.00	14
51.00	5



① Visualized Understood

linear  $\rightarrow$  Straight line!!

Regression  $\rightarrow$  Measure of Relation

A Straight line that attempts to predict the rel. bet 2 variables

$$y = mx + c \rightarrow \boxed{box + b}$$

$\downarrow$  Slope       $\downarrow$  Intercept

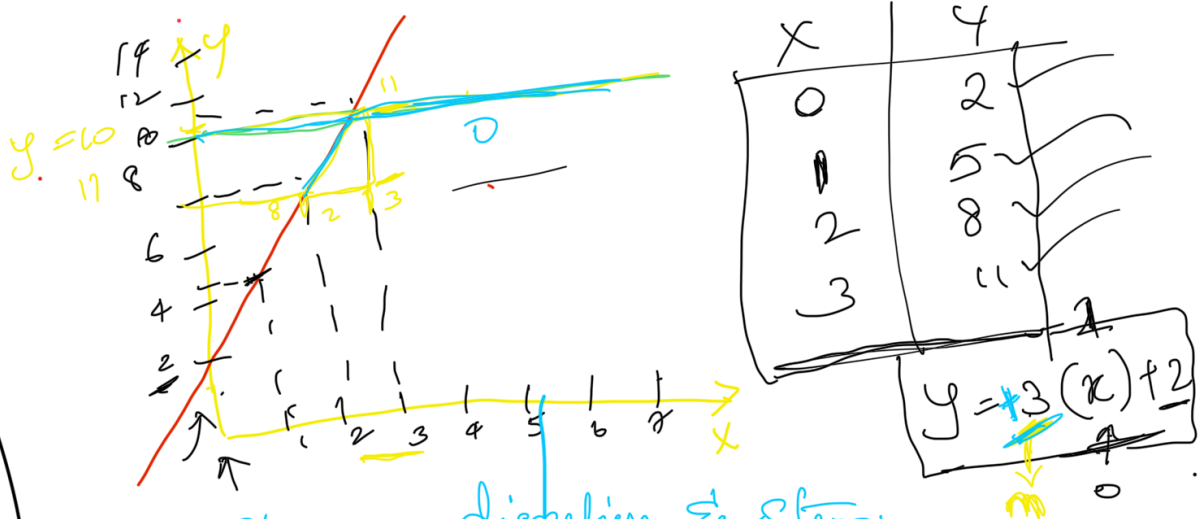
$ax + c$	$ax + b$	$mx + b$
----------	----------	----------

$m \rightarrow$  slope  
 $c \Rightarrow$  intercept

① Best fit (line)!!

② y-variable or a target variable

③ Residuals  $\rightarrow$  difference bet. B.F & D.P



Slope  $\rightarrow$  direction & steepness

$$y = mx + c \rightarrow \begin{array}{l} \text{y-intercept} \\ \text{value} \end{array}$$

$\downarrow$   
slope  $\rightarrow$  steepness / direction

+ve  
0  
-ve