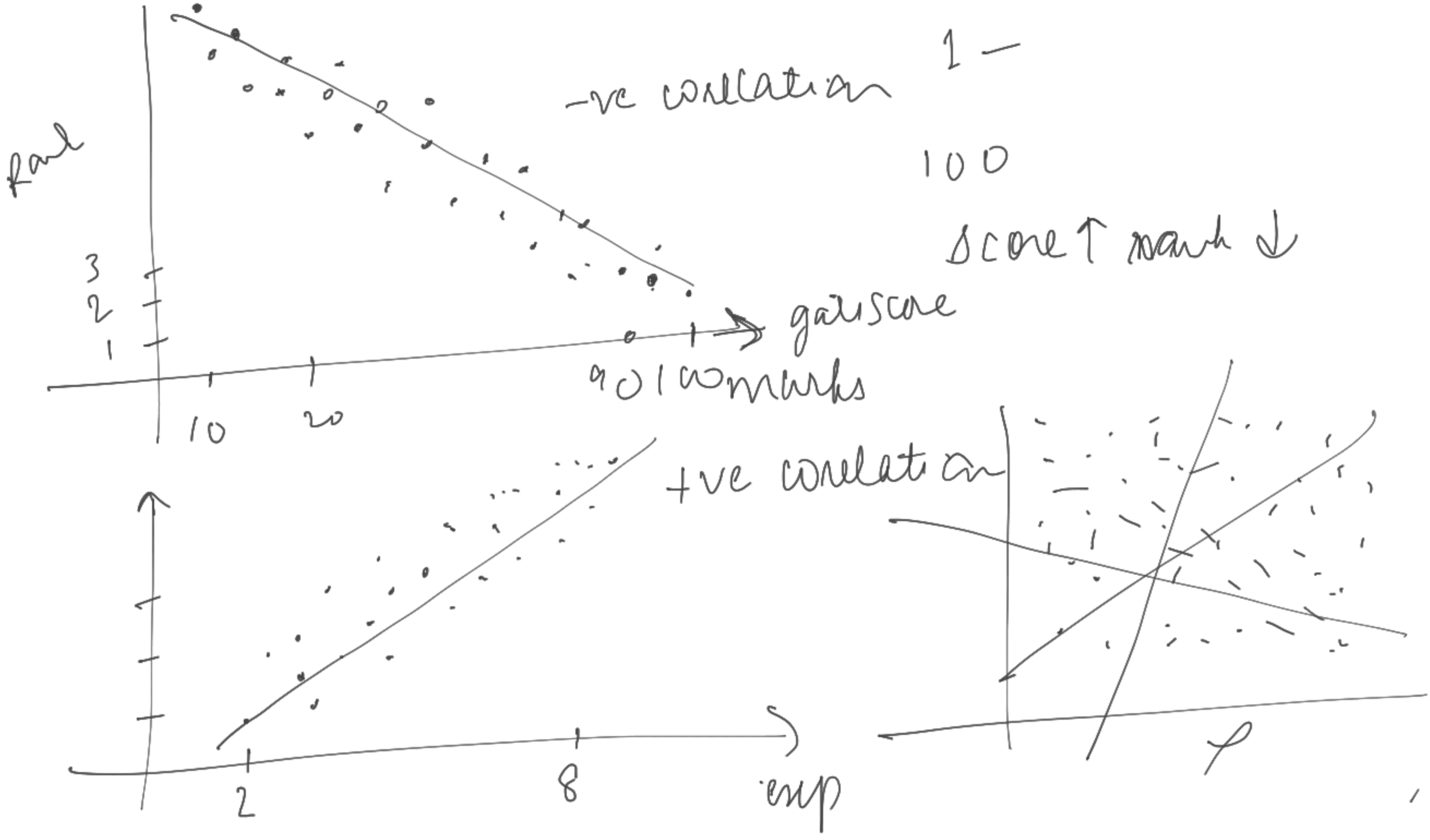
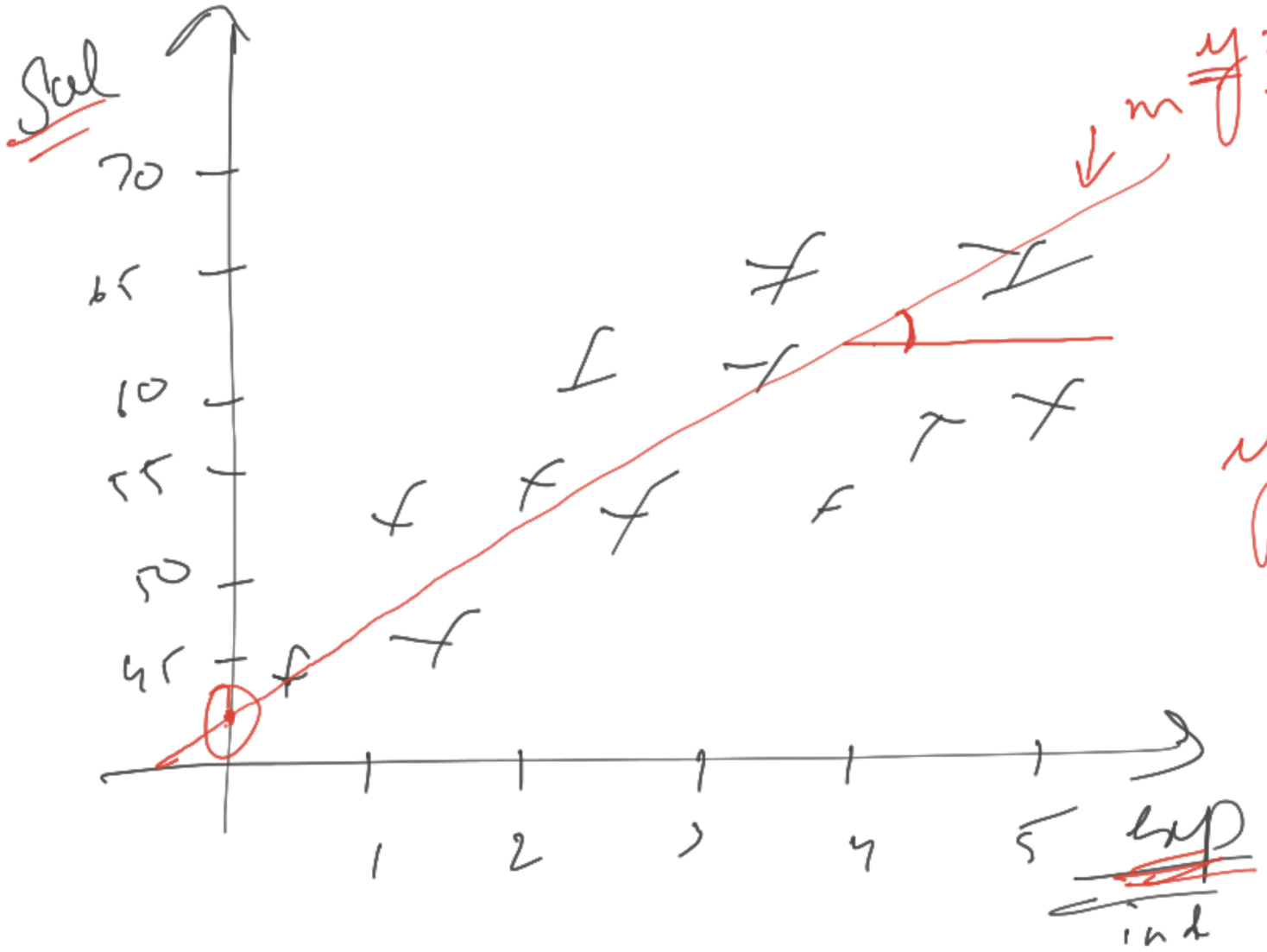

-ve correlation
1 —
100
score ↑ rank ↓
fail
3
2
1
10
20
gaiscore
90 100 marks
+ve correlation
2
8
exp
p



$y = mx + c$

$y = 2x$

$y = mx$

$= 2 \times 0$

$y = 0$

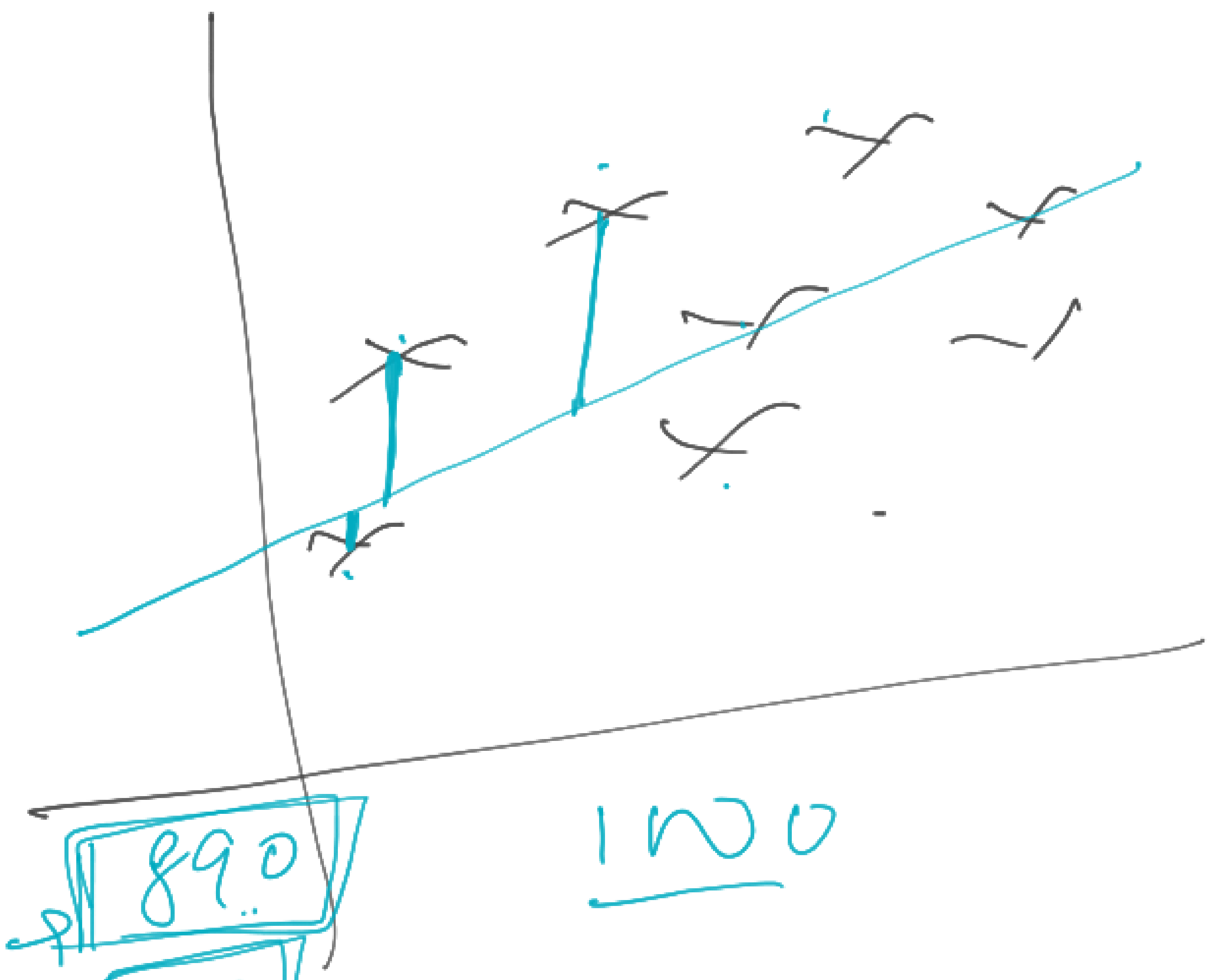
c → value of y when x = 0

m → weightage of x in calc the value of y

error (Residue)

$= (y_a - y_p)^2$ $\hat{y} \rightarrow y_{pred}$

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



mse

mean squared error $\frac{\sum (y_a - y_p)^2}{n}$

10 → 890

80

1000 100 10   add / n

1000

100

2000

cost funⁿ min mse =

MSE : $\frac{1}{n}\sum_{i=1}^{n}(y_i-(\hat{y}))^2$ $\hat{y}_{pred}$: $mx+c$

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

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

m $c=0$

min (MSE) error

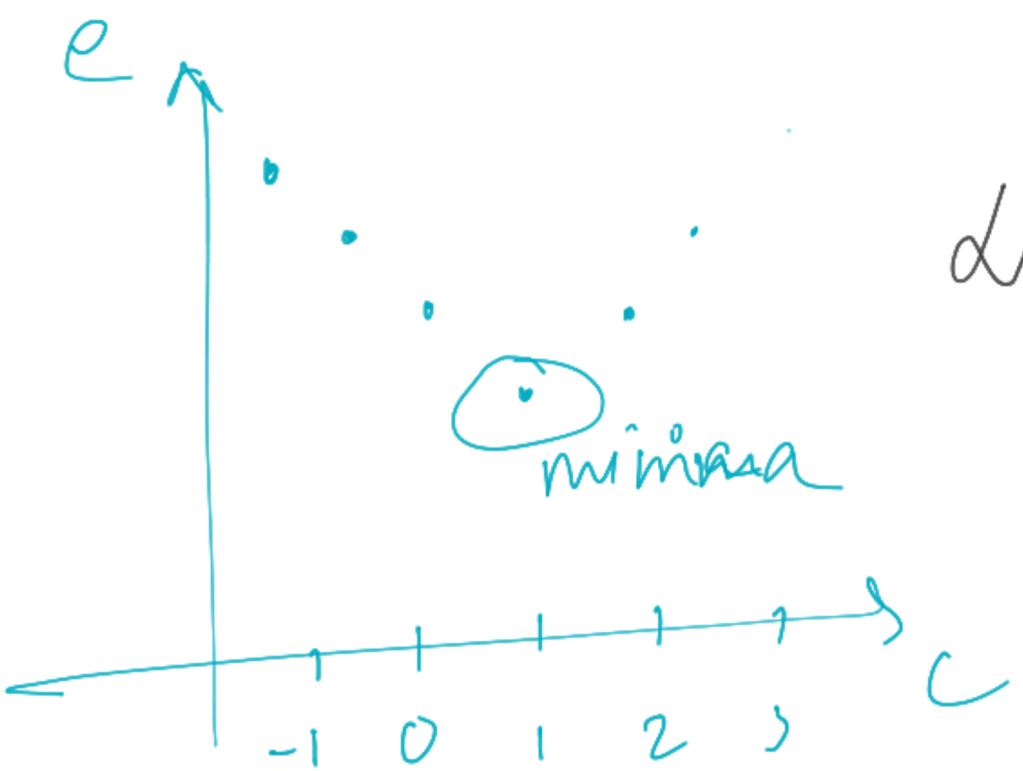
minima

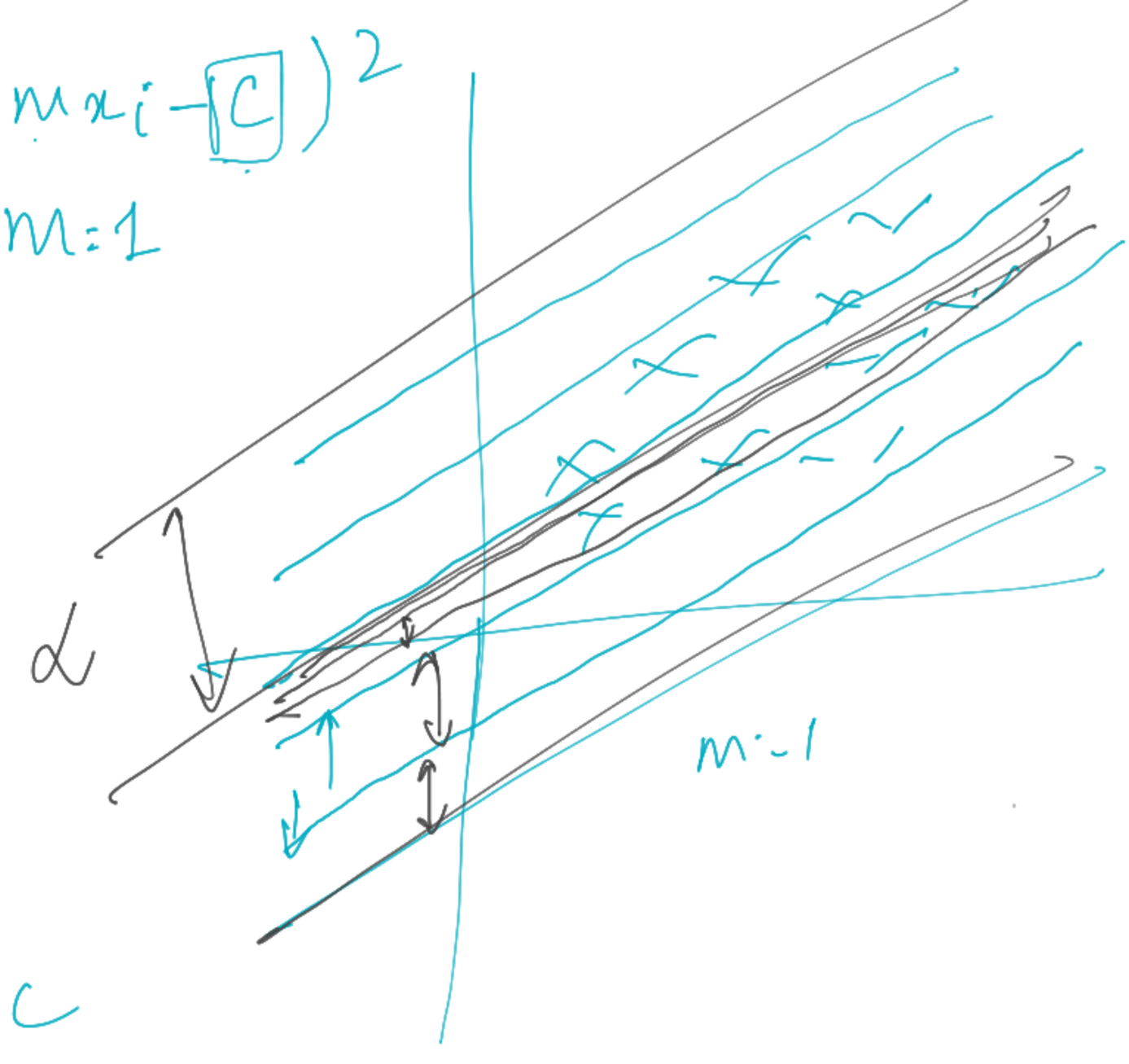
0.5 1 1.5 2 2.5 slope

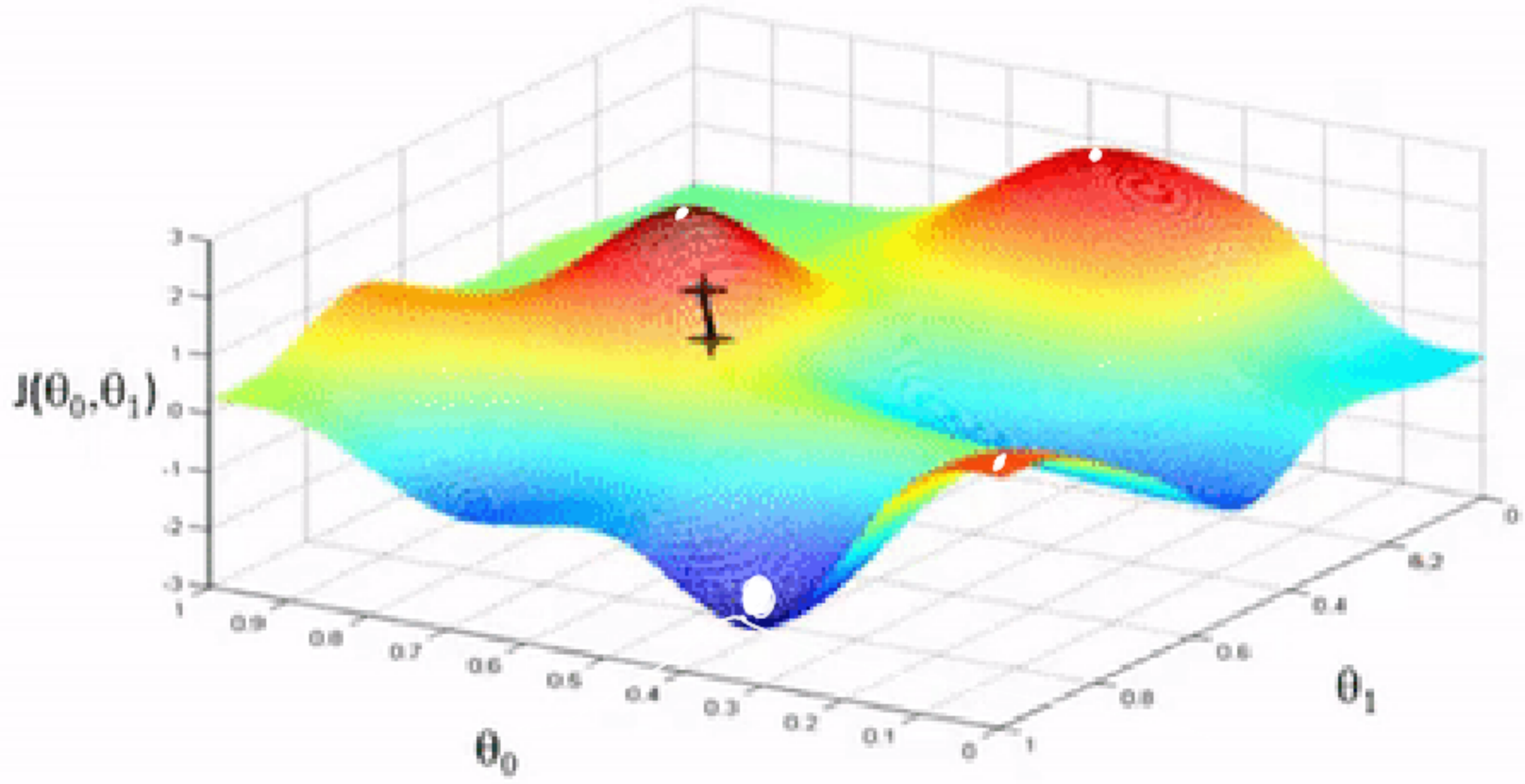
m

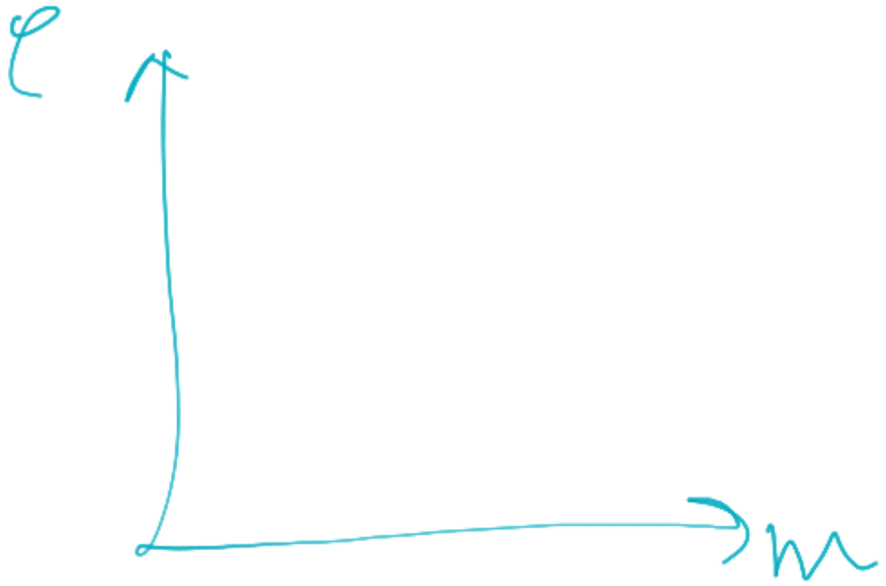
α-

$$mse: \frac{1}{n}\sum_{i=1}^{n}(y_i - mx_i - \boxed{c})^2 \qquad m=1$$

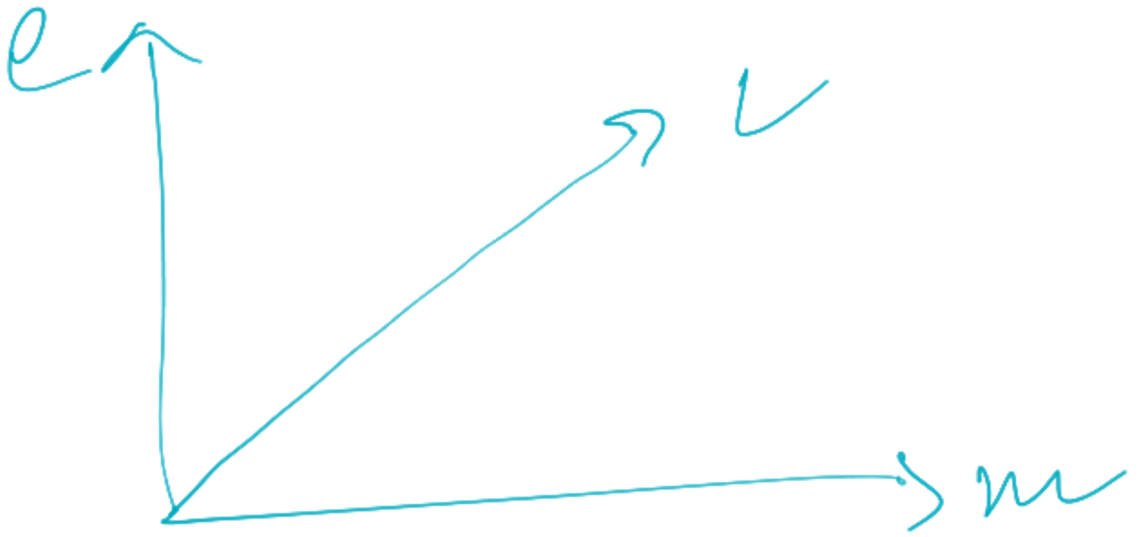





$J(\theta_0,\theta_1)$
3
2
1
0
-1
-2
-3
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
θ_0
0
0.2
0.4
0.6
0.8
1
θ_1


e
m


e
c


e
L
m