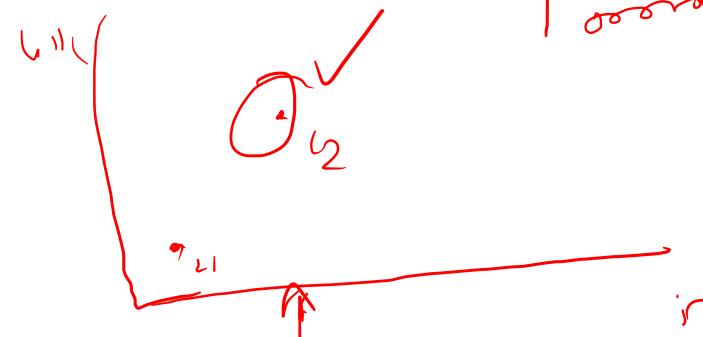
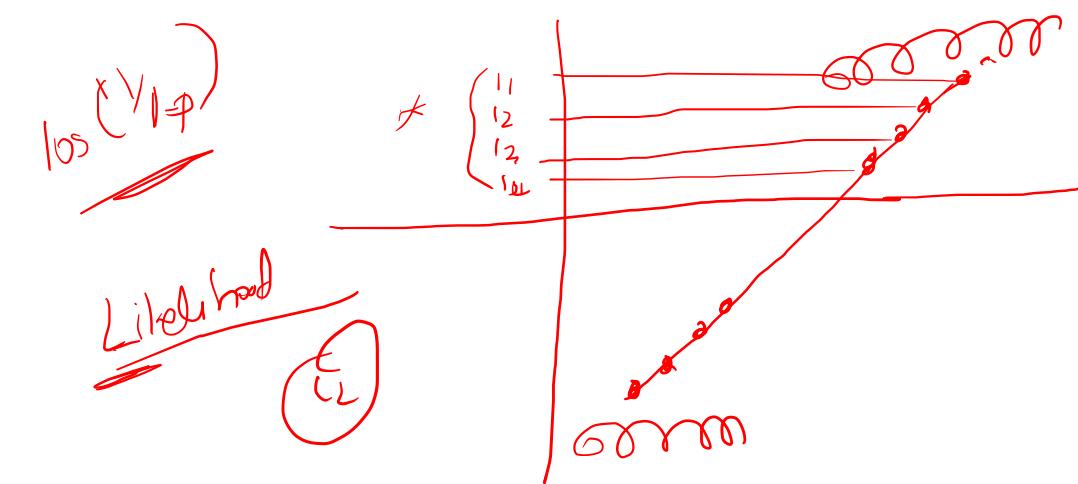
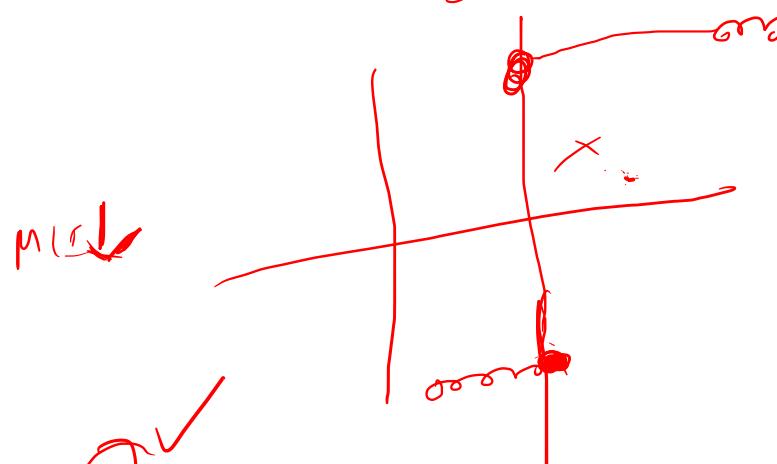
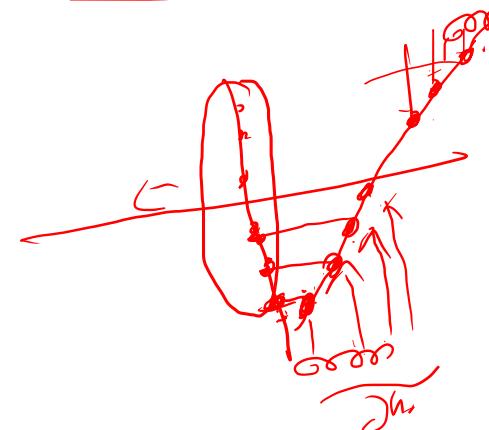
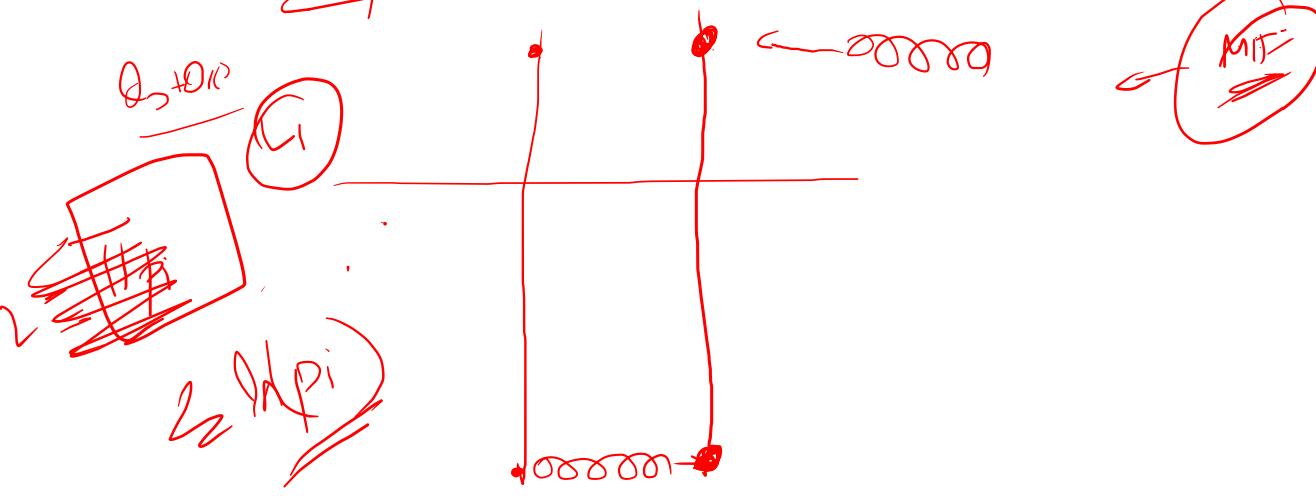


$$\text{Likelihood} = \prod p_i$$

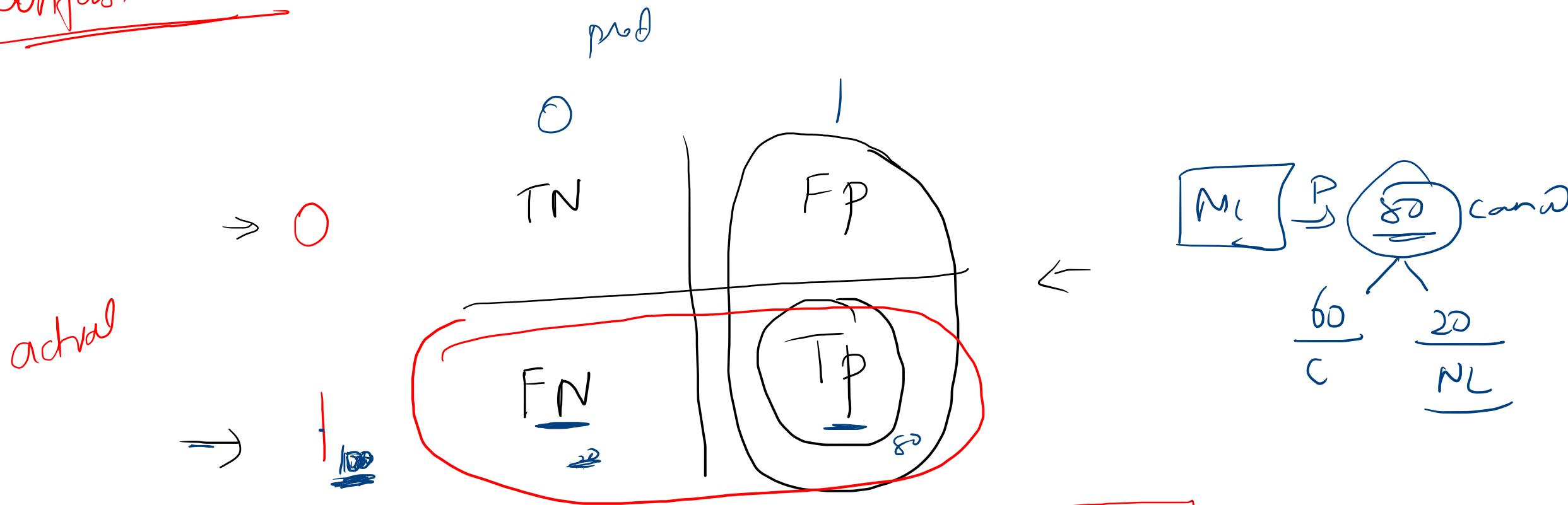
$\frac{\text{Mean}}{\text{SP}} = ?$
 $\underline{\text{MLE}}$ estimate



$$\log \left(\frac{P}{1-P} \right) = g = \theta_0 + \theta_1 x_i$$



Confusion Matrix



$$\text{Accuracy} = \frac{TN+TP}{TN+TP+FN+FP}$$

Recall $\rightarrow \frac{TP}{TP+FN}$ TPR

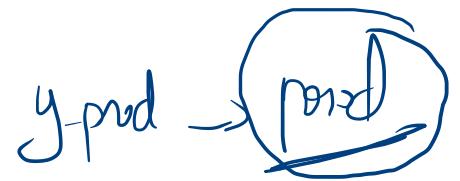
Precision

$$= \frac{TP}{TP+FP}$$

$FPR \Rightarrow \frac{FP}{FP+TN}$

false positive ratio

Roc & AUC



Threshold $\rightarrow 0.5$ \times
w/ors \downarrow p-thn $\downarrow \alpha$

$70 \rightarrow P$
 $30 \rightarrow NP$

area \approx
(> mean)

Margination
↳ Random
(≈ 0.5)

$\begin{cases} 0.1 \leq P \\ < 0.1 \quad NP \end{cases}$

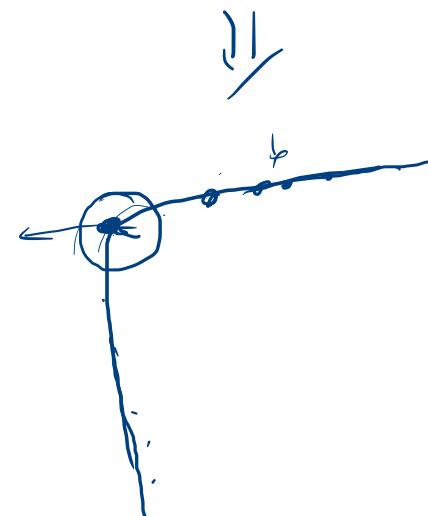
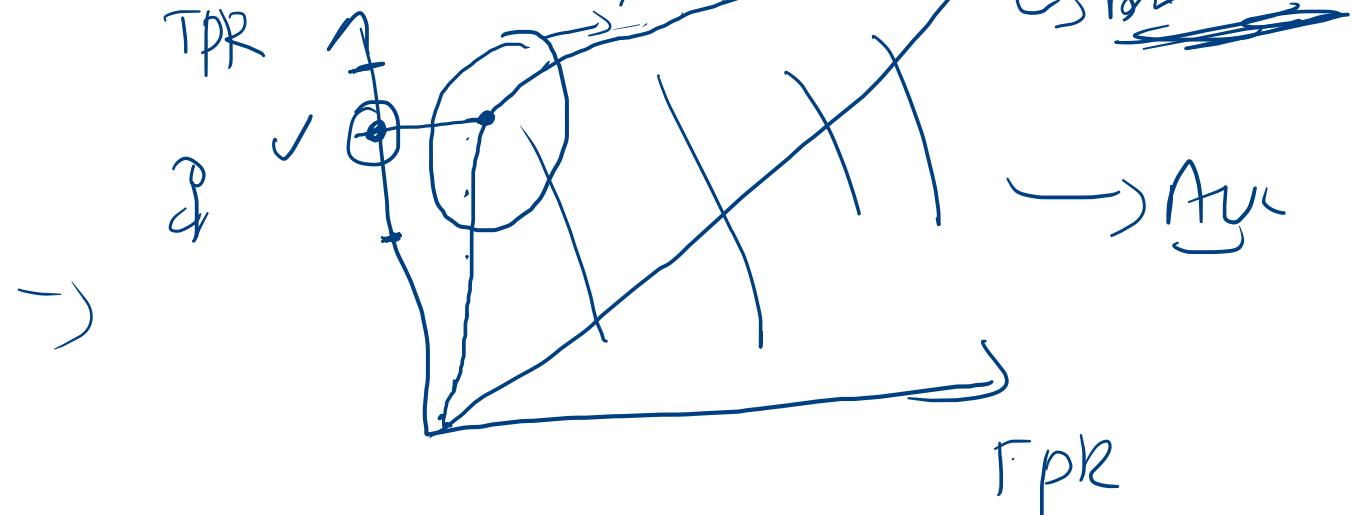
Threshold $0.1 \rightarrow$ confusion $\rightarrow TPR, FPR$

$0.2 \rightarrow$ correct $\rightarrow TPR^P, FPR^P$

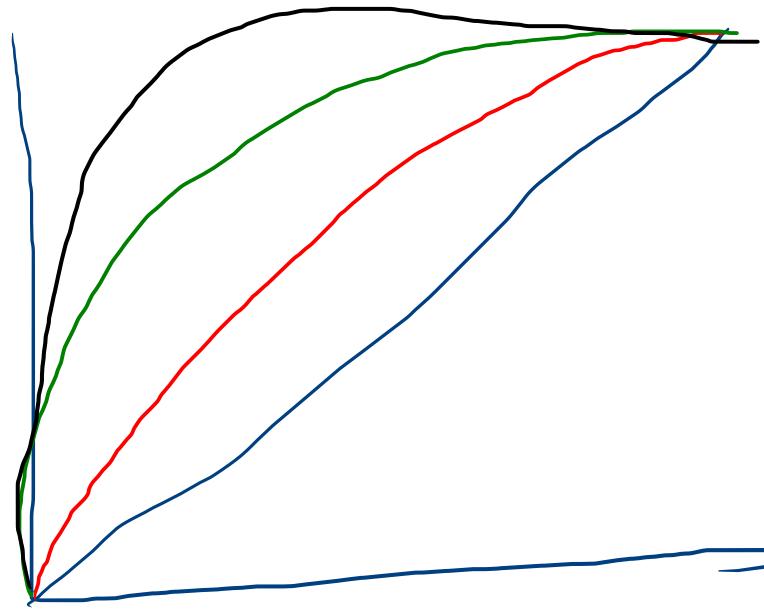
$0.3 \rightarrow$ confusion $\rightarrow TPR, \overline{FPR}$

.

$\vdots \rightarrow$ confusion - TPR, FPR







Black → AUC
 green
 red

$\rightarrow \partial r$

