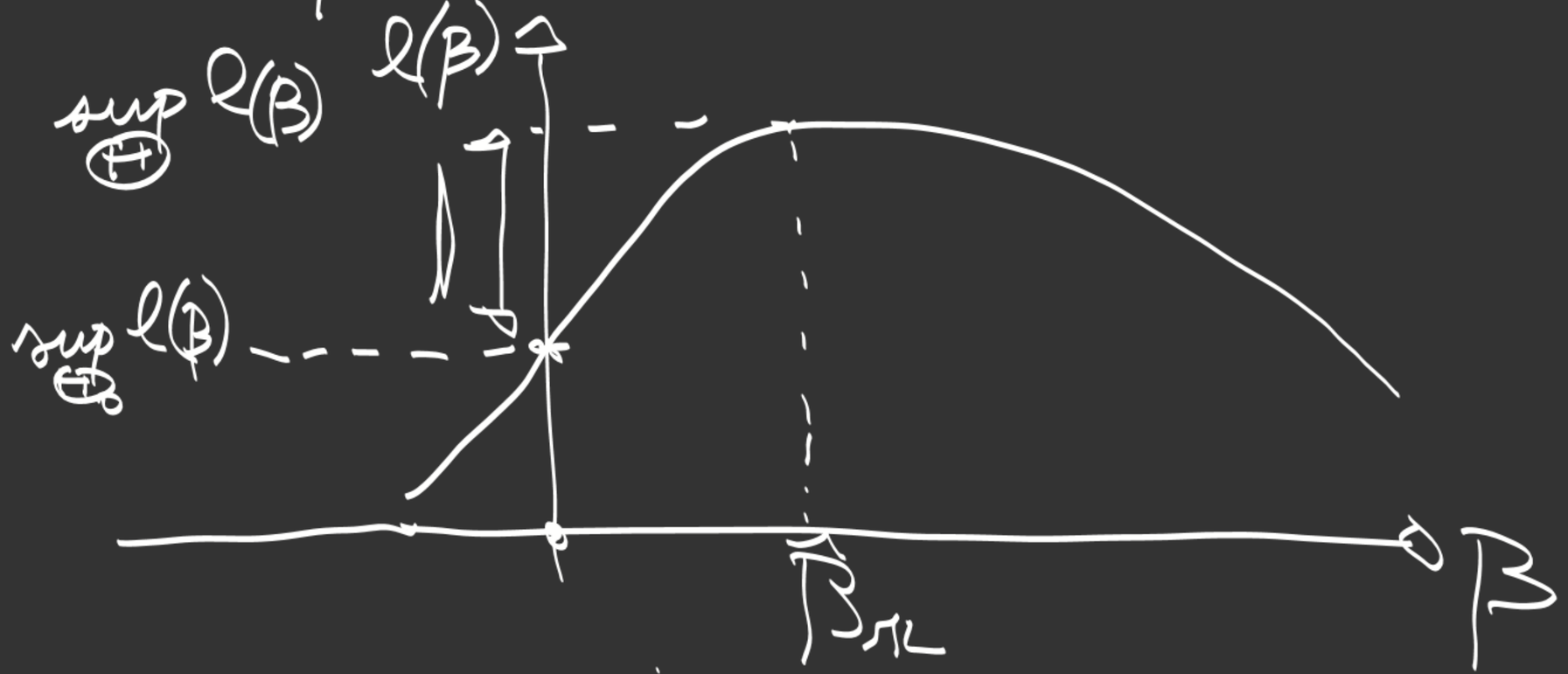
$Y_i \sim f(\beta)$, $\beta \in \mathbb{R} \equiv \Theta$, $i = 1, 2, \ldots, n$

$H_0: \beta = 0$ $\quad \Theta_0 = \{0\}$



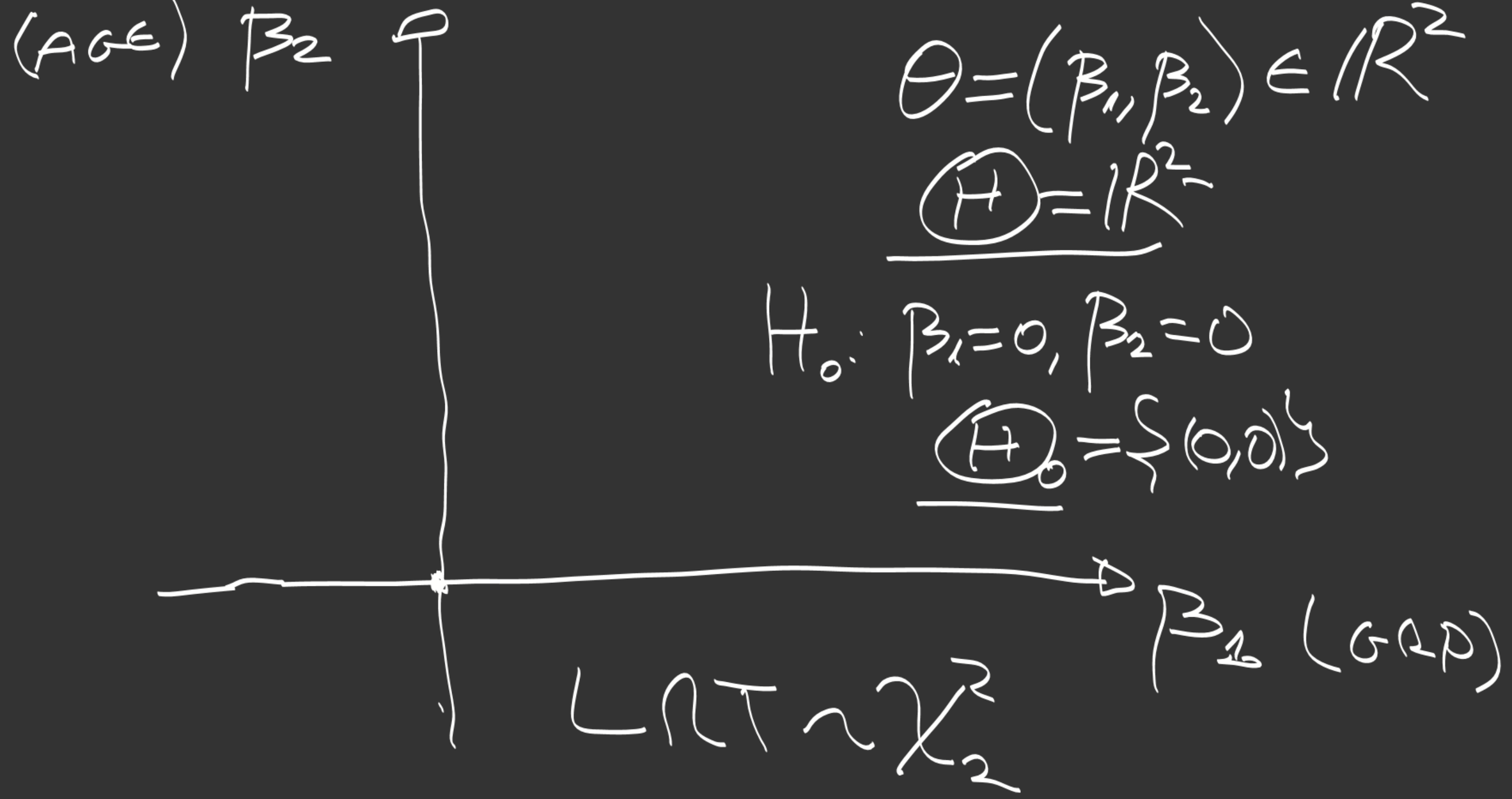
$$2\left(\sup_{\beta \in H} \ell(\beta) - \sup_{\beta = b} \ell(\beta)\right) = LRT$$

$LRT \sim ?$

$H \equiv \mathbb{R}$

$LRT \xrightarrow{n} \chi^2_1$

$H_0 = \{0\}$



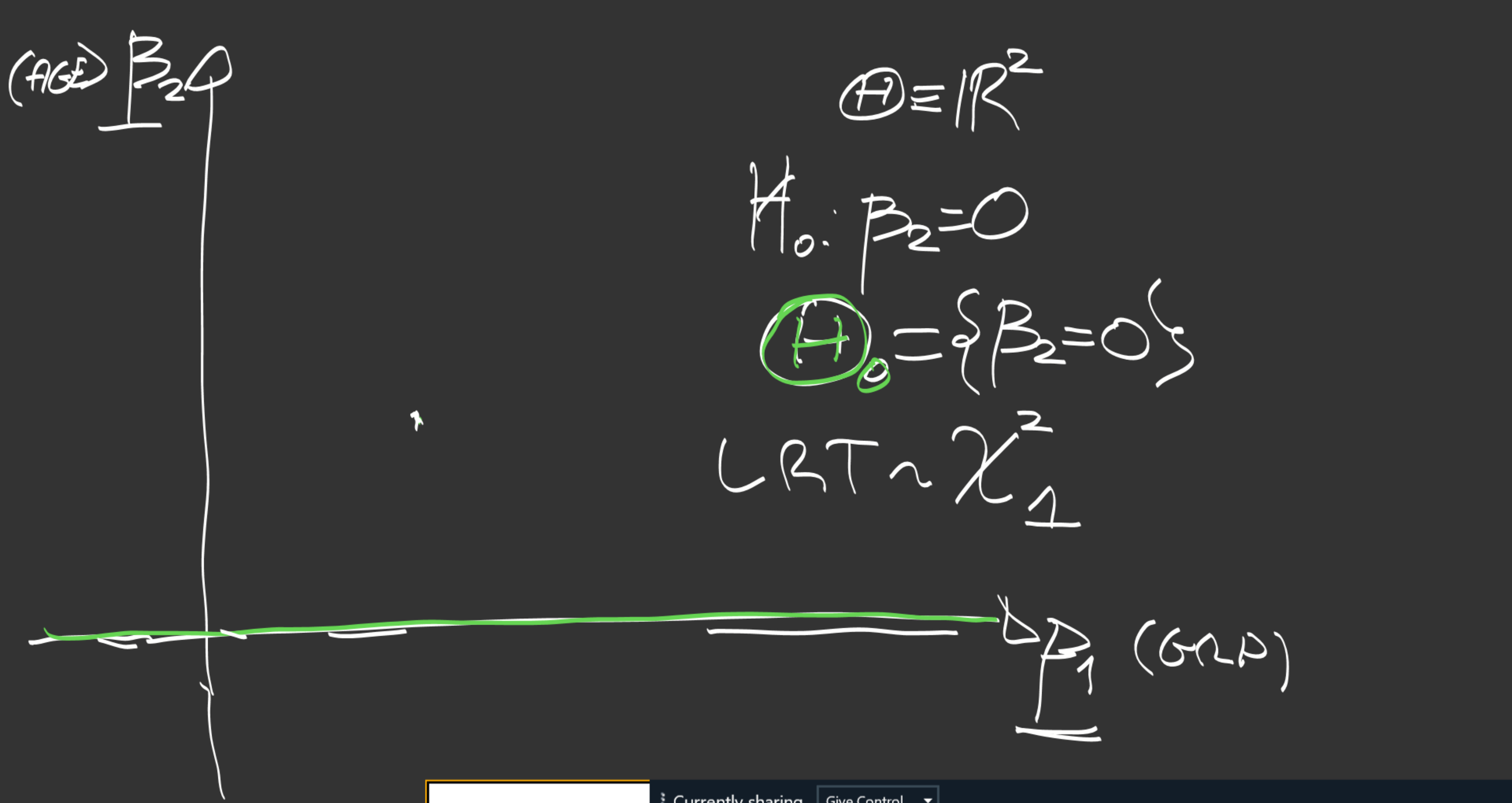
$\Theta = (\beta_1, \beta_2) \in \mathbb{R}^2$

$\Theta = \mathbb{R}^2$

$H_0: \beta_1 = 0, \beta_2 = 0$

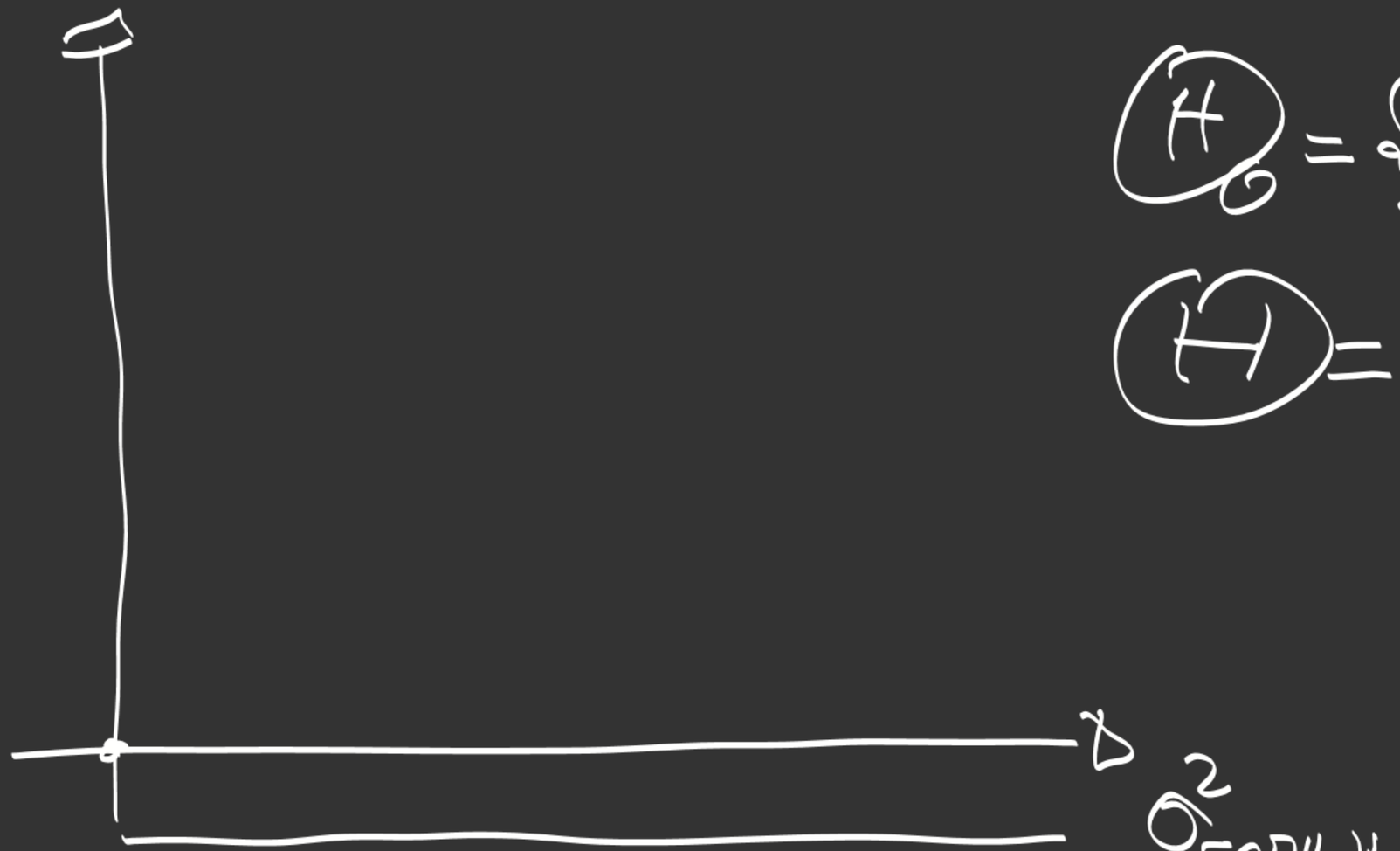
$\Theta_0 = \{(0,0)\}$

$LRT \sim \chi^2_2$



Currently sharing Give Control

Nested models: (partial) Likelihood Ratio Test (LRT)



$H_0 : \sigma^2_{FAMILY} = 0$

$\mathbb{R}^+$

$H_0 = \{0\}$

$H = \mathbb{R}^+$

- **EXERCISE**

IN THE MODEL "MAIC"
FROM THE NB
ESTIMATE THE HAZARD RATIO
COMPARING "65+" vs "50-64"
"35-49" . . .
"<35" vs "50-64"

EX. 2.

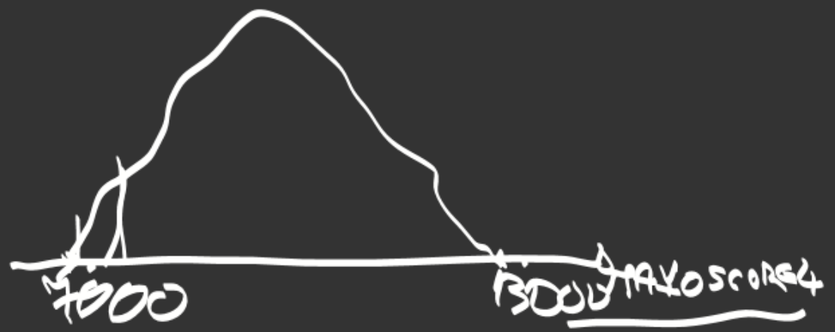
IN THE SURVIVAL::mayo DATASET,

a) IS "mayoscore" associated with survival?

b) WHICH DIRECTION?

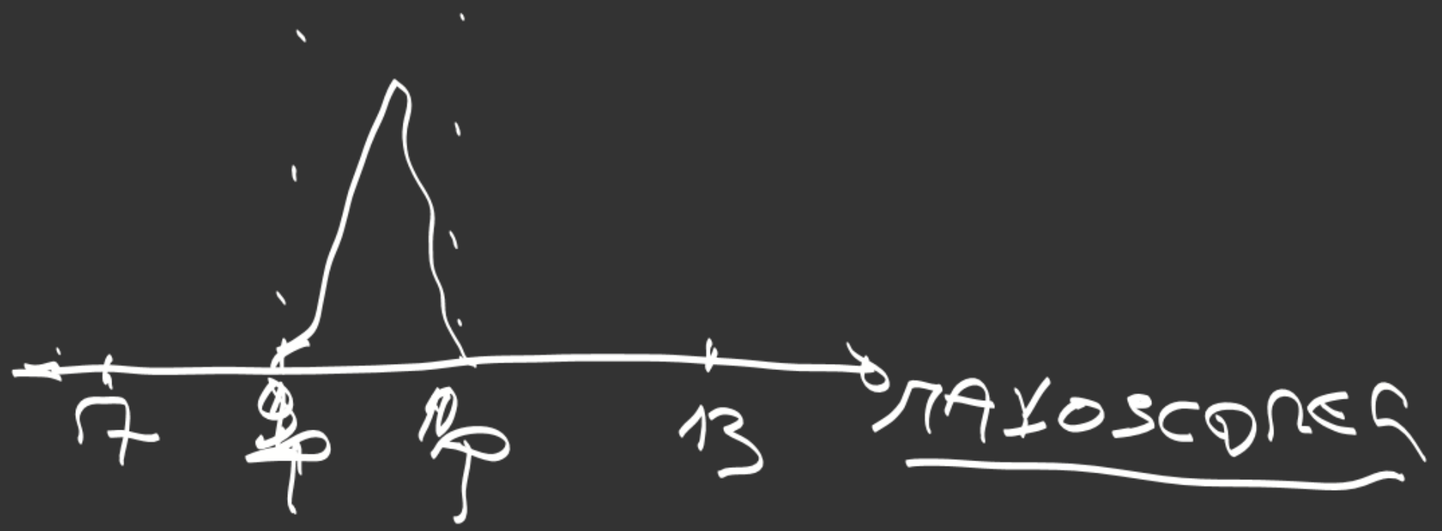
c) WHAT ABOUT "mayoscore4"?

HR=2.7



$$MS4S = \frac{MS4}{SD(MS4)}$$

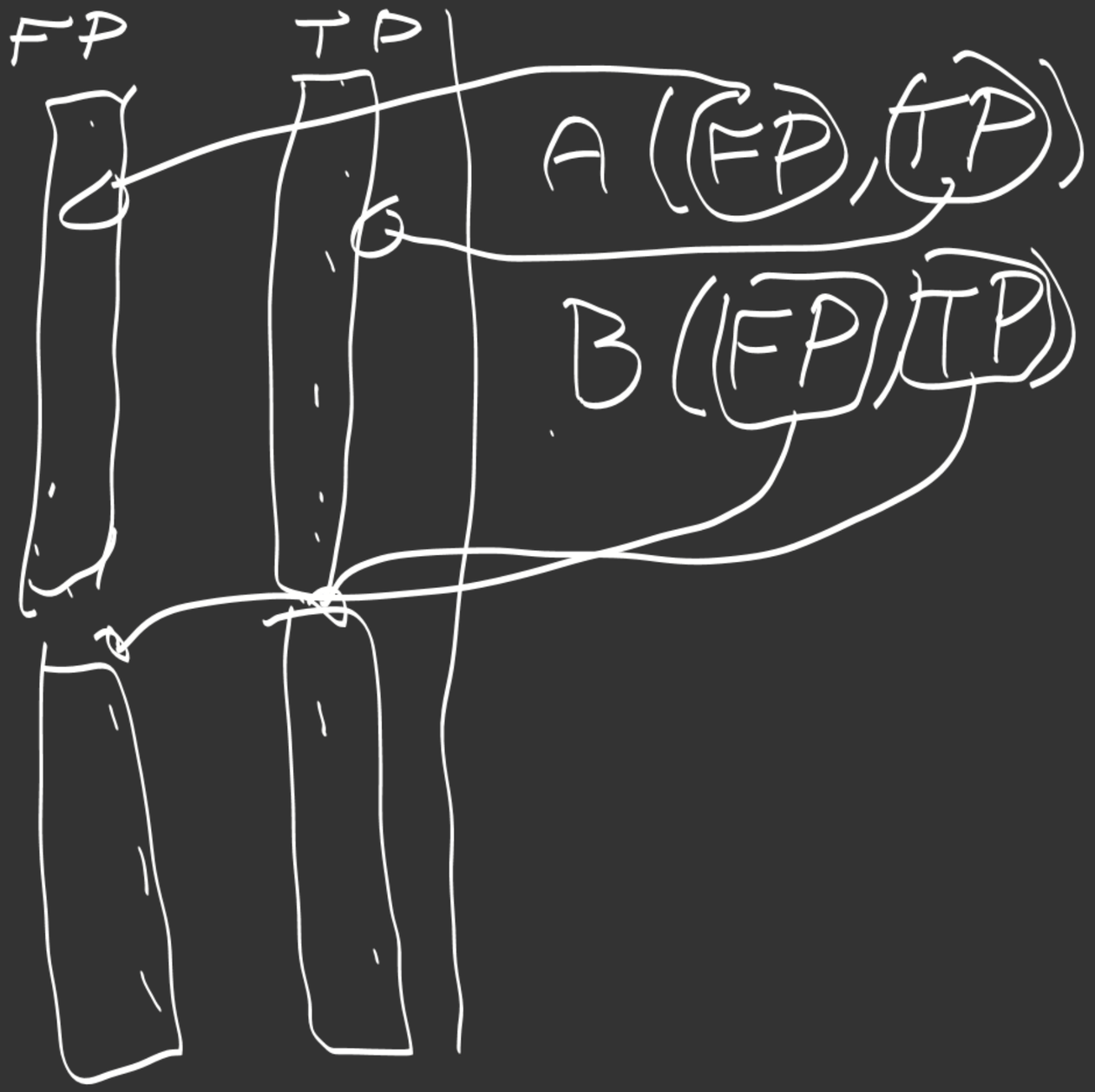
HR=2.7

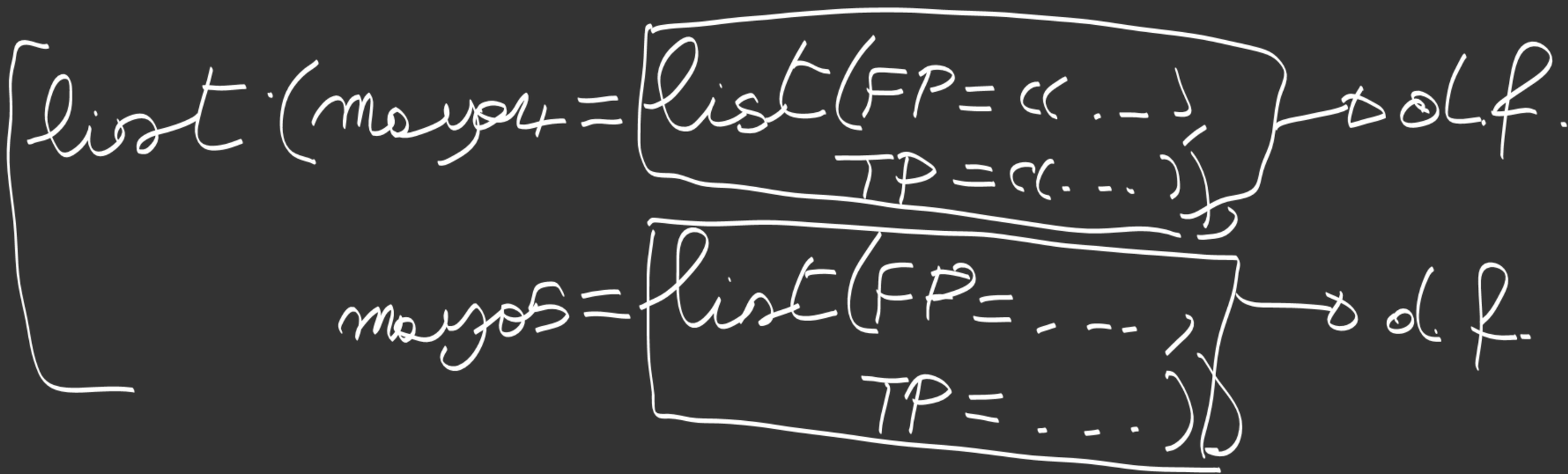


$$MSSS = \frac{MSS}{SD(MSS)}$$

MARKER

- MSL
  MS4
  .
  .
  .
- MS4
  MS3
  .
  .
  .
  MS



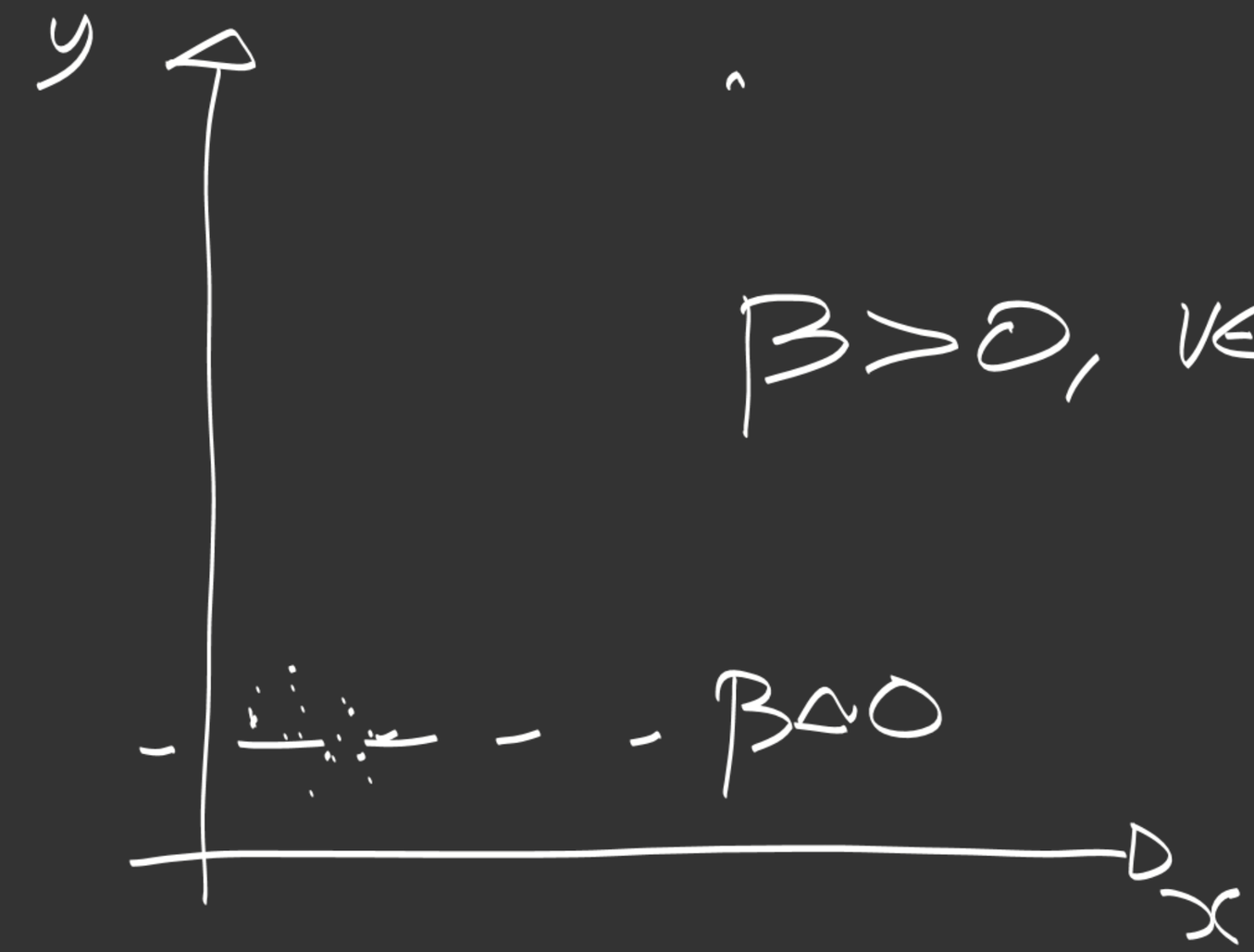


→ lapply(ROC, fun)

```
rbind(T1, T2, ...)
-list(T1, T2)
do.call(rbind, )
```

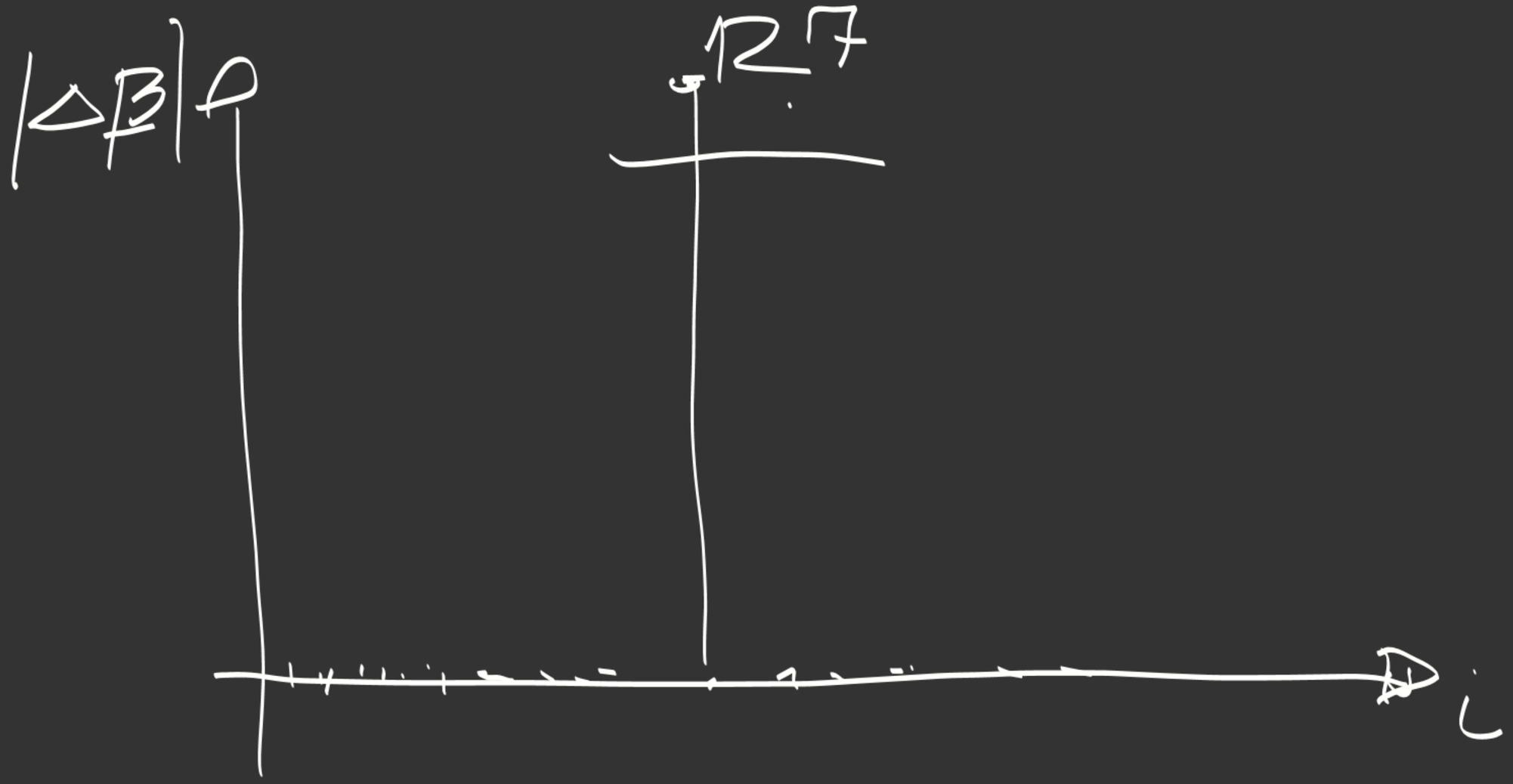
- MODEL SELECTION
  - LRT (NESTED MODELS)
  - AIC
    - "STEP"
- PERFORMANCE METRICS
  - CONCORDANCE INDEX (PERFORMANCE METRIC)
  - AUC

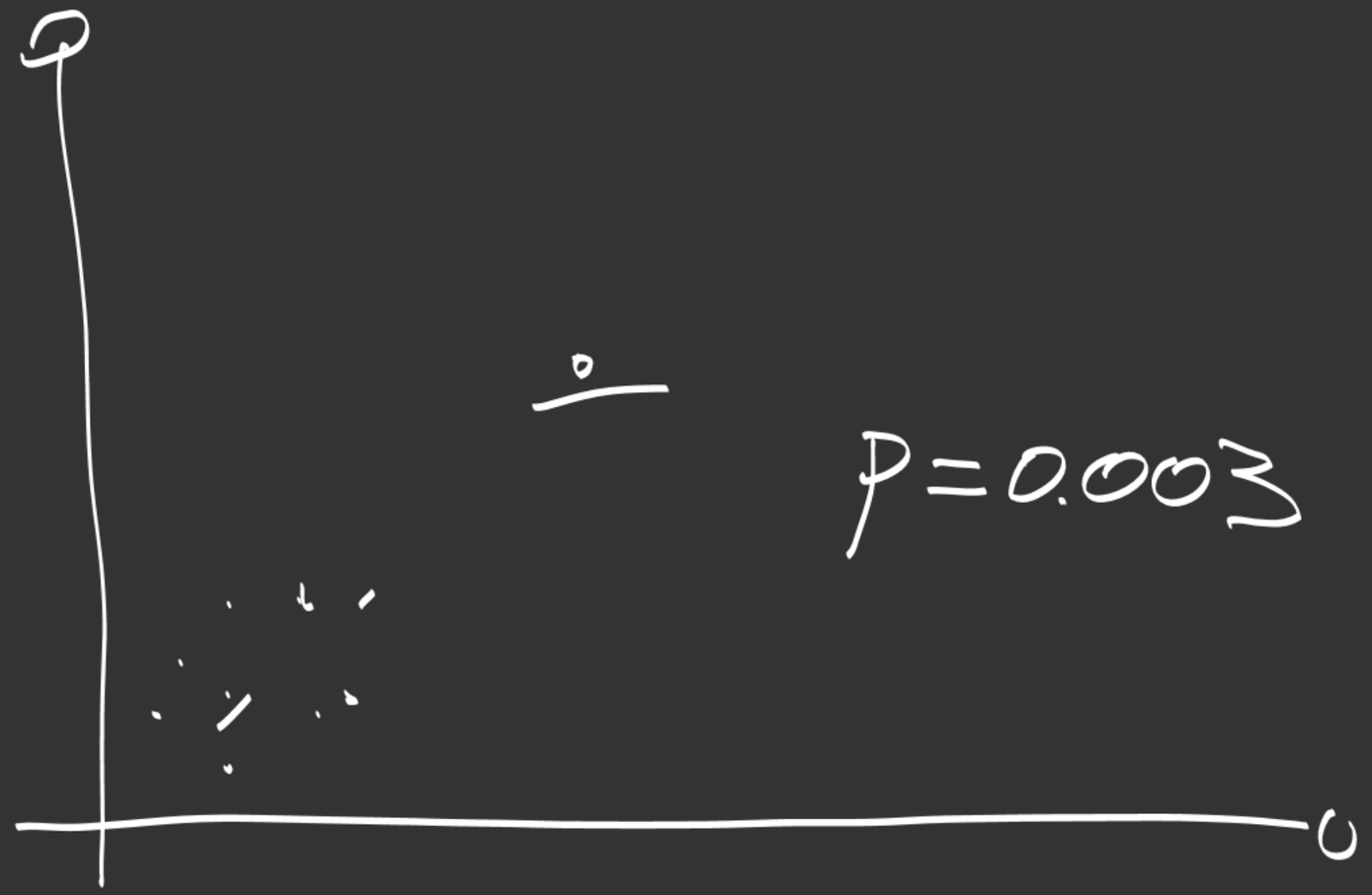
MODEL DIAGNOSTICS



$n = 100$

$B > 0$, VERY, VERY SIG.


ABC
R7
D
i



$n=10$

$p=0.003$

BACK TOMORROW

10 A.M.

BACK AT

1:15 p.m.