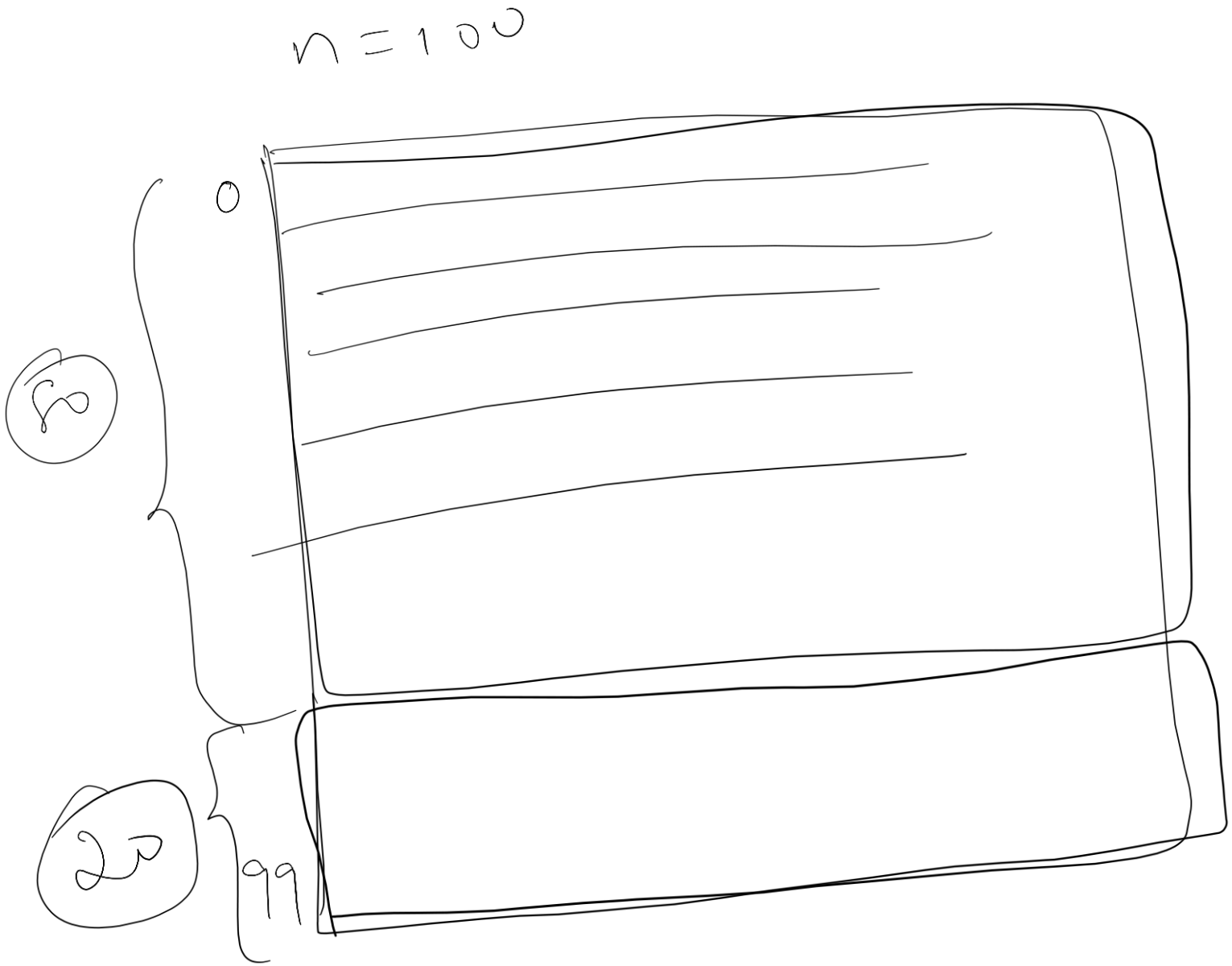
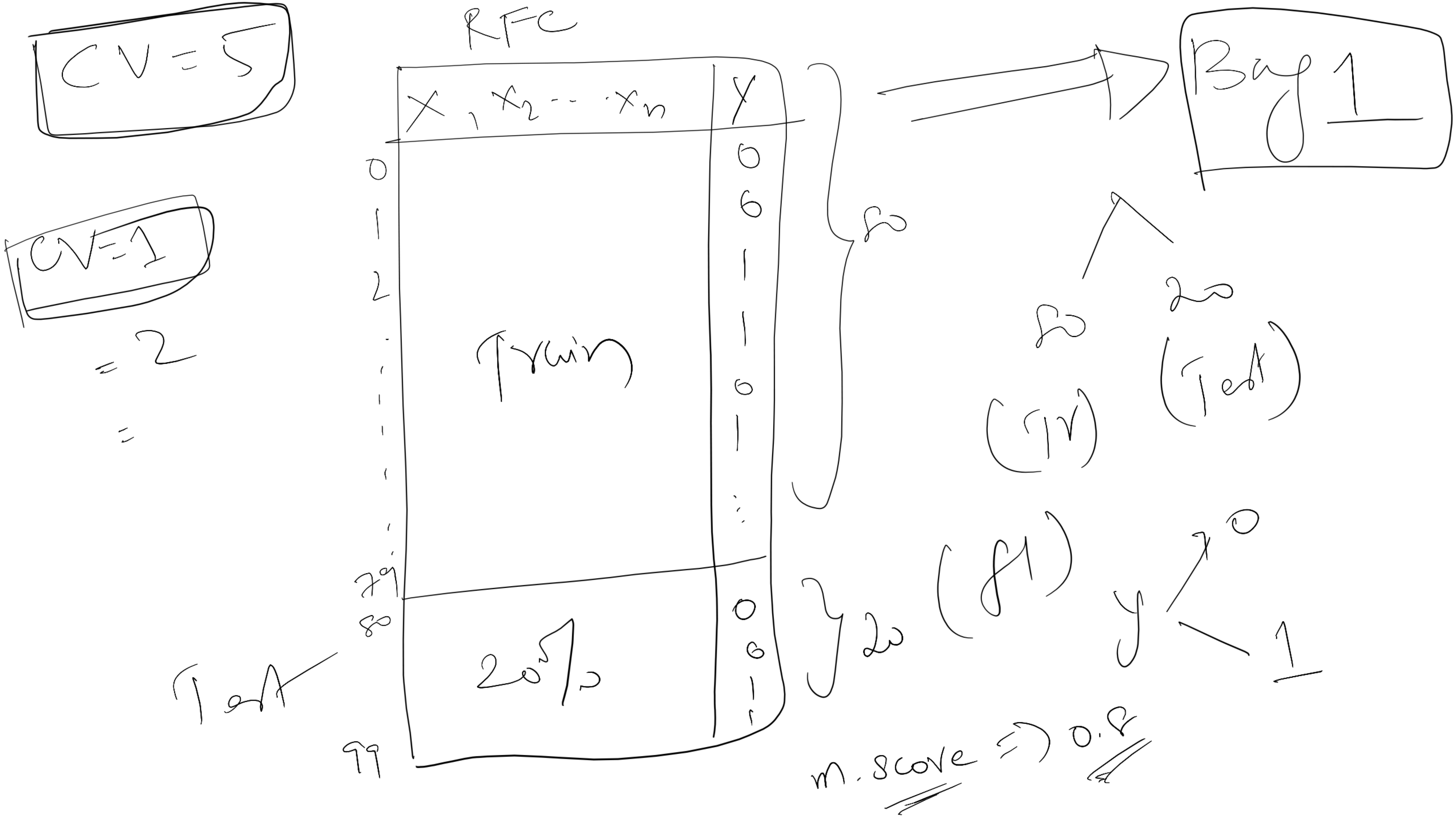


CV

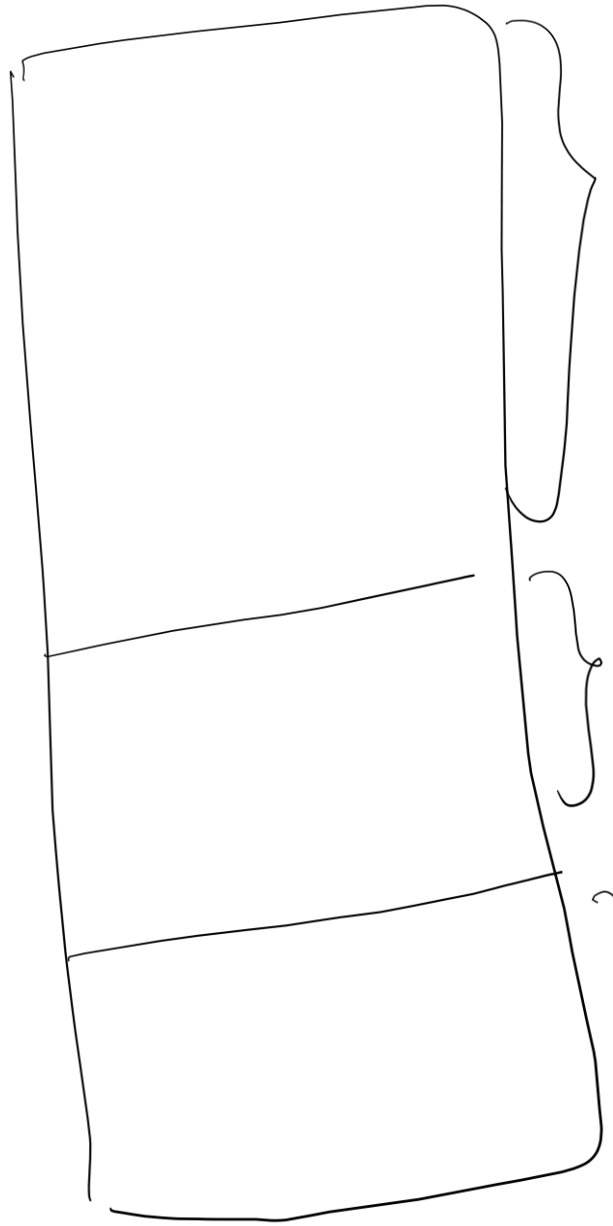
test_size = 0.2

0.8

0.2


CV=5
CV=1
=2
RFC
X1 X2 ... Xn
Y
Train
20%
Test
Bag 1
(Tr)
(Test)
m.score => 0.8

CV=2



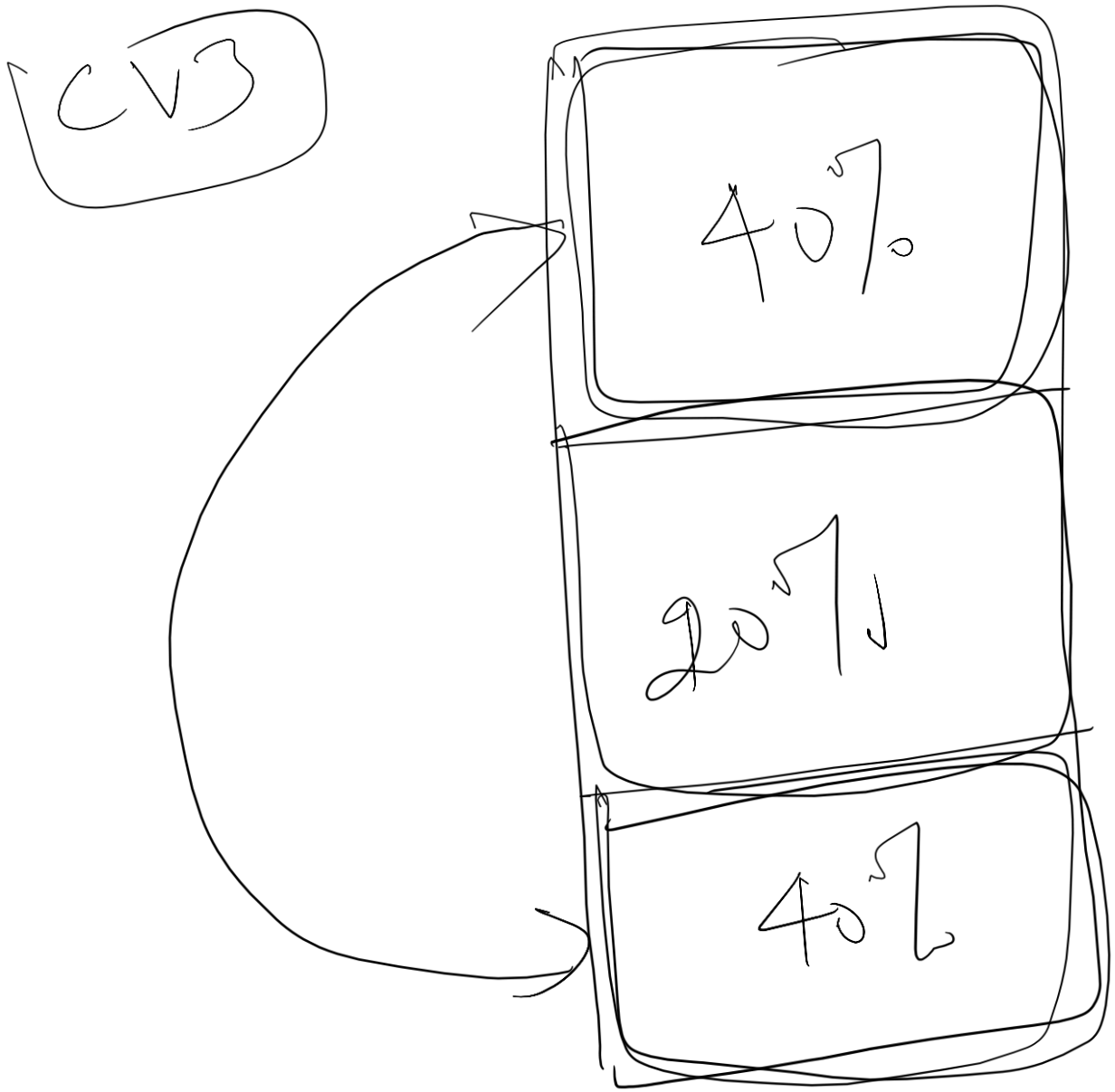
60%
(Tr)

Test (20%)

20
(Tr)

m.score → 0.7

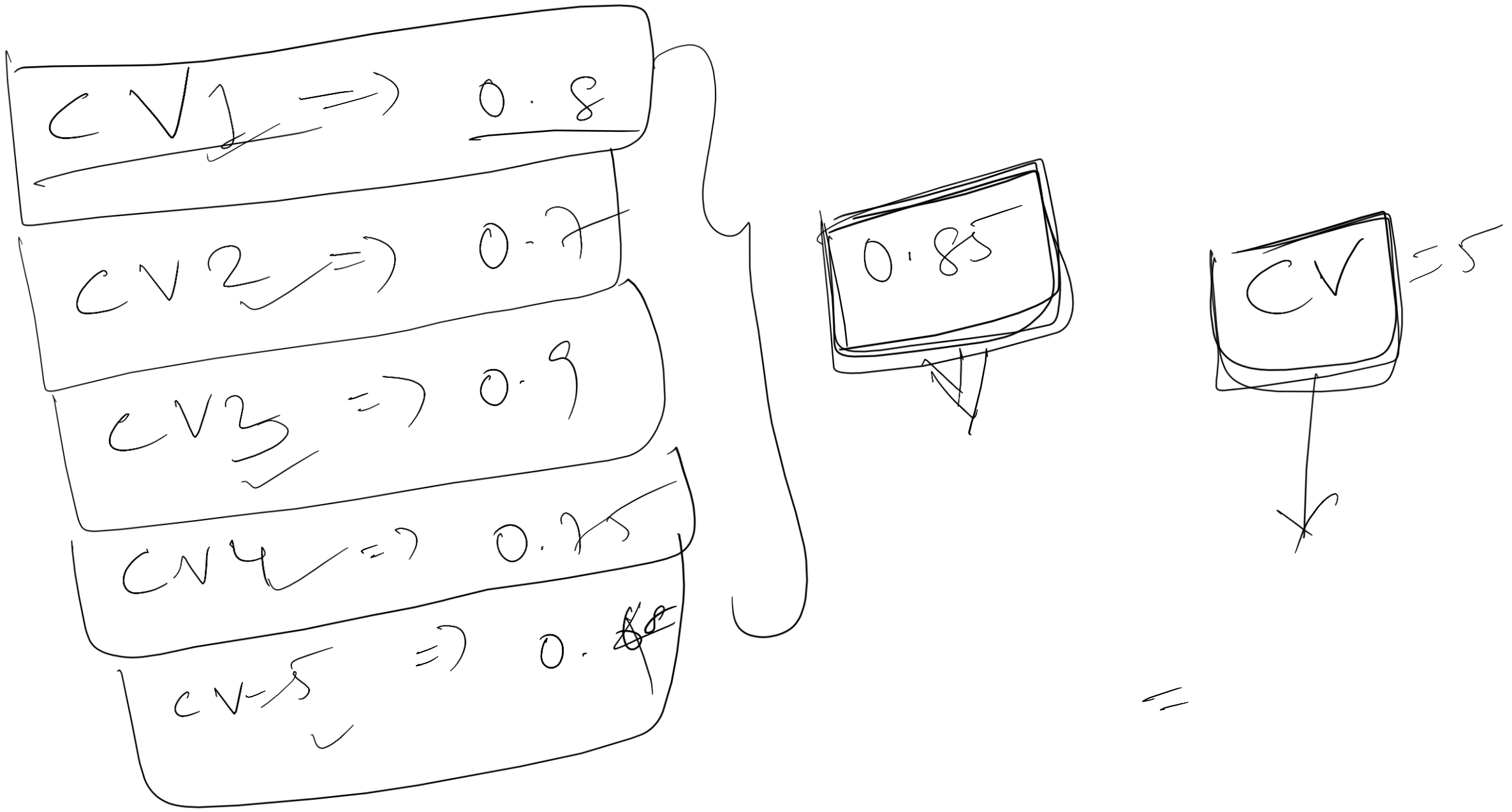
∞ → Train



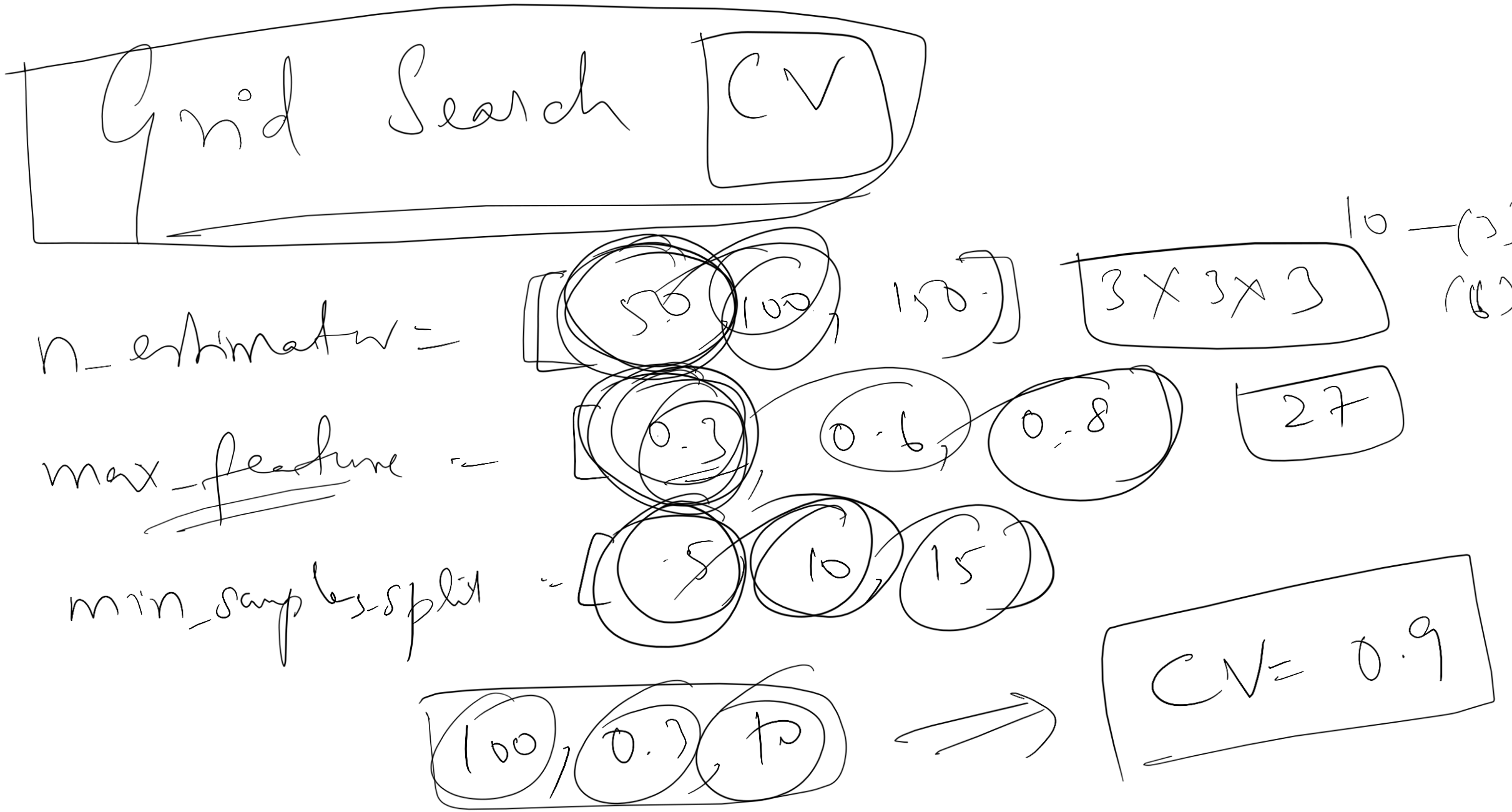
m.fit(x_train, y_train)

m.predict(x_test)

m.score → 0.85


CV1 => 0.8
CV2 => 0.7
CV3 => 0.9
CV4 => 0.75
CV-5 => 0.
0.85
CV = 5

Grid Search CV

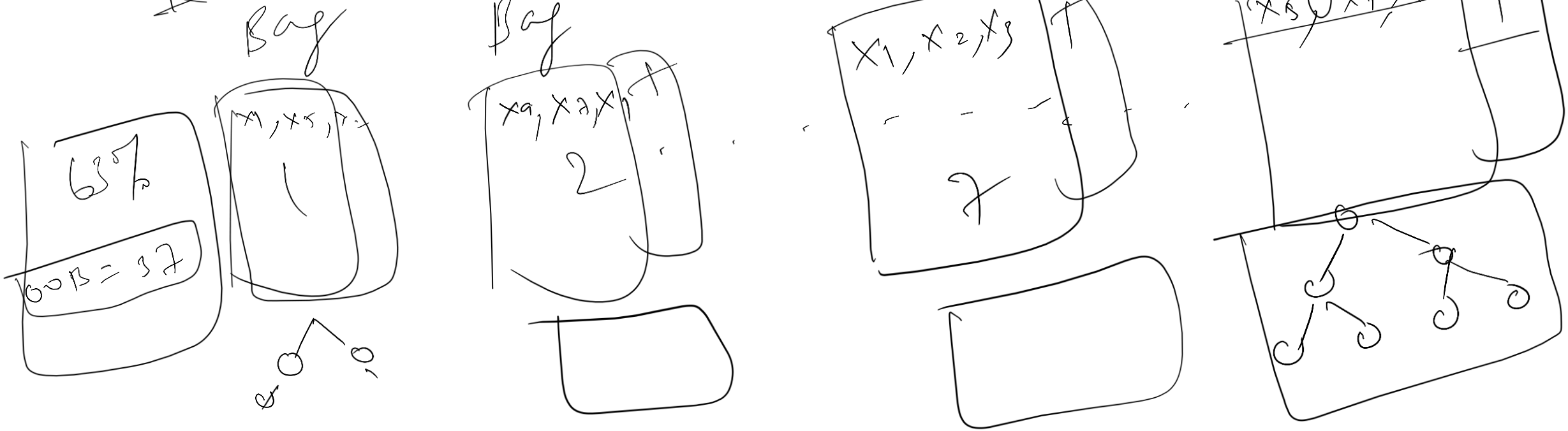


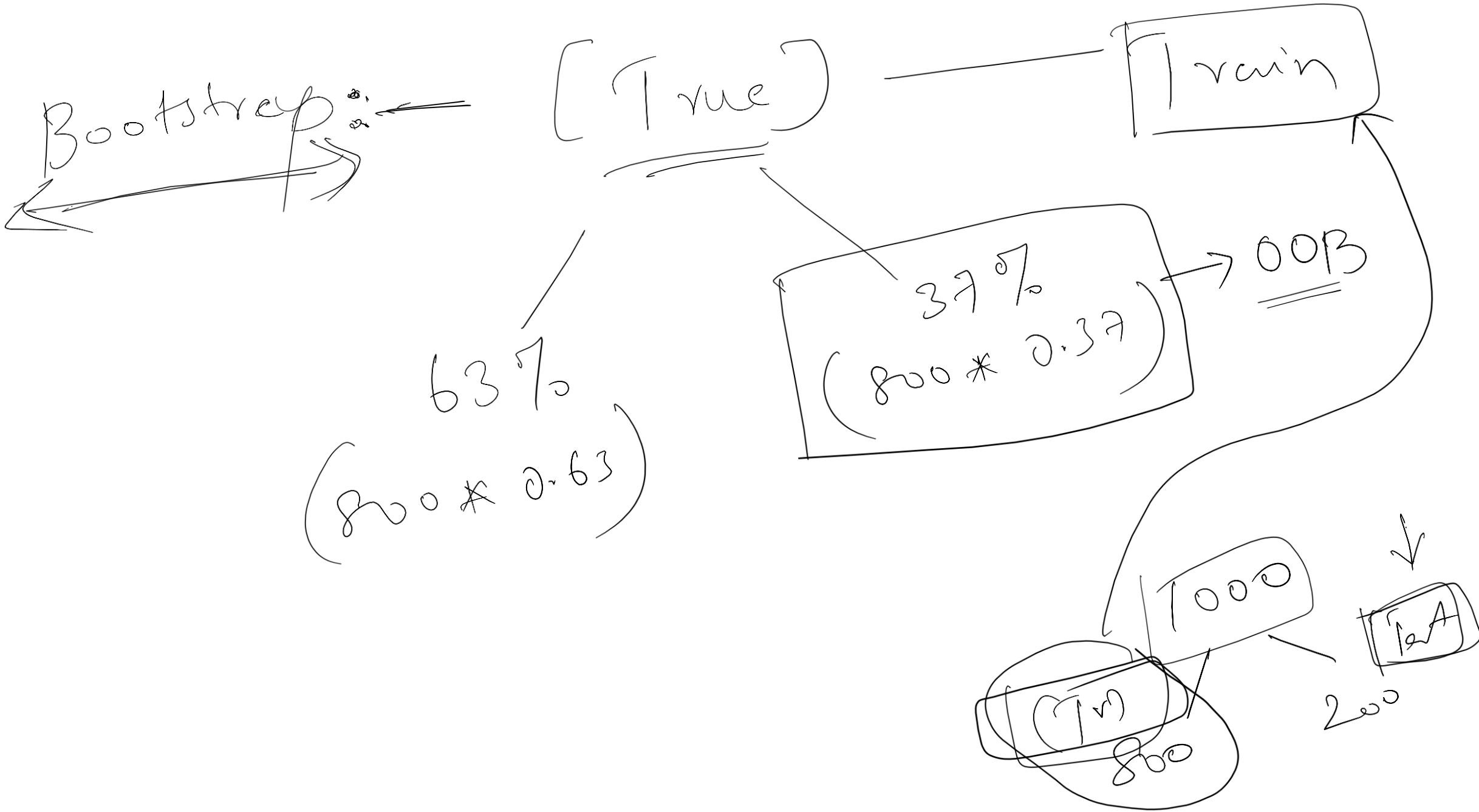
Ensemble

Bagging :- RF → Random subset of rows + cols

Bootstrap aggregating

n_estimators = 10




Bootstrap
True
Train
63%
(800 * 0.63)
37%
(800 * 0.37)
OOB
1000
1m
800
1nA
200

Randomized Search CV

n_iter = 50

iter = 1

[n_estimator = 5 → 10

max_feature = 0.4

min_samples_leaf = 20

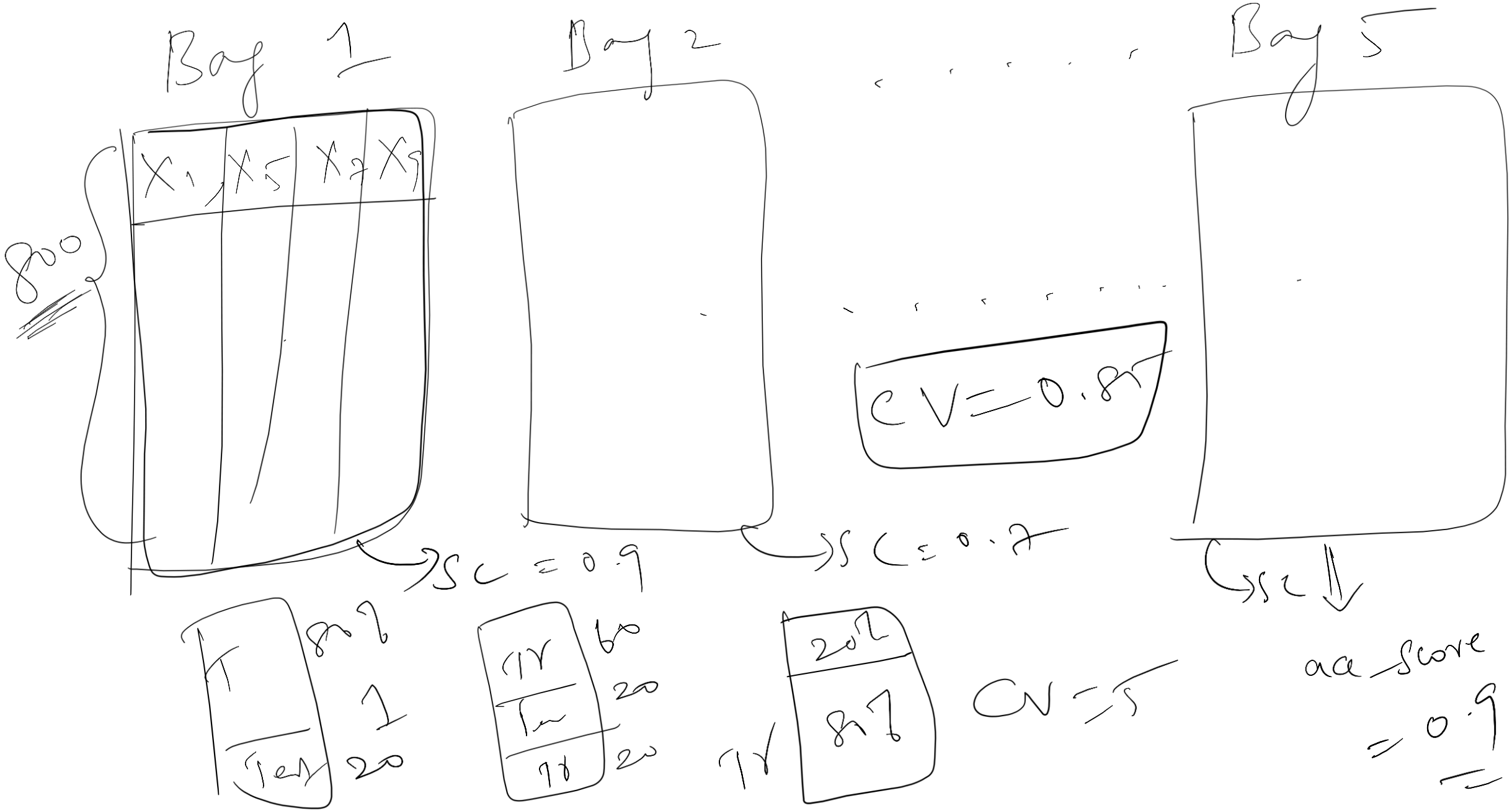
bootstrapping = False

CV = 5

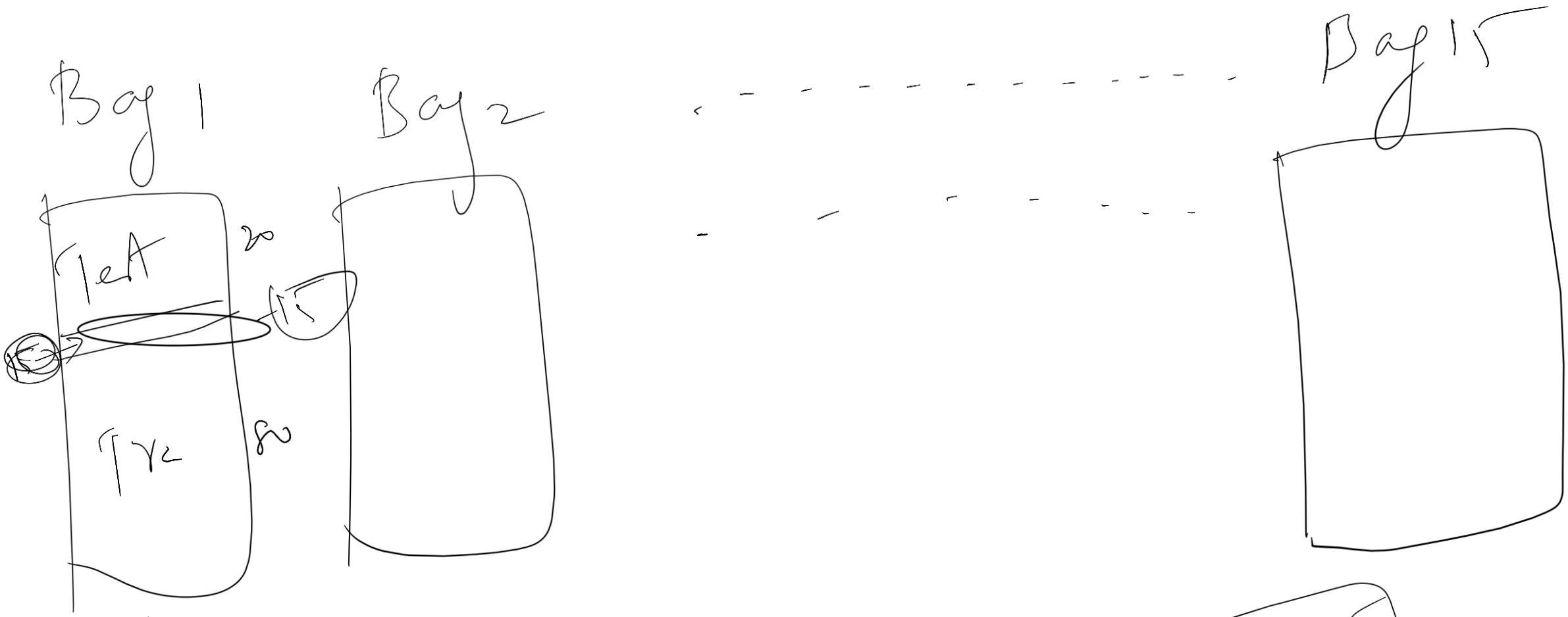
→ 800

Test

200


Bag 1
Bag 2
Bag 5
80
CV = 0.8
SC = 0.9
SC = 0.7
SC
aa score
= 0.9
CV = 5

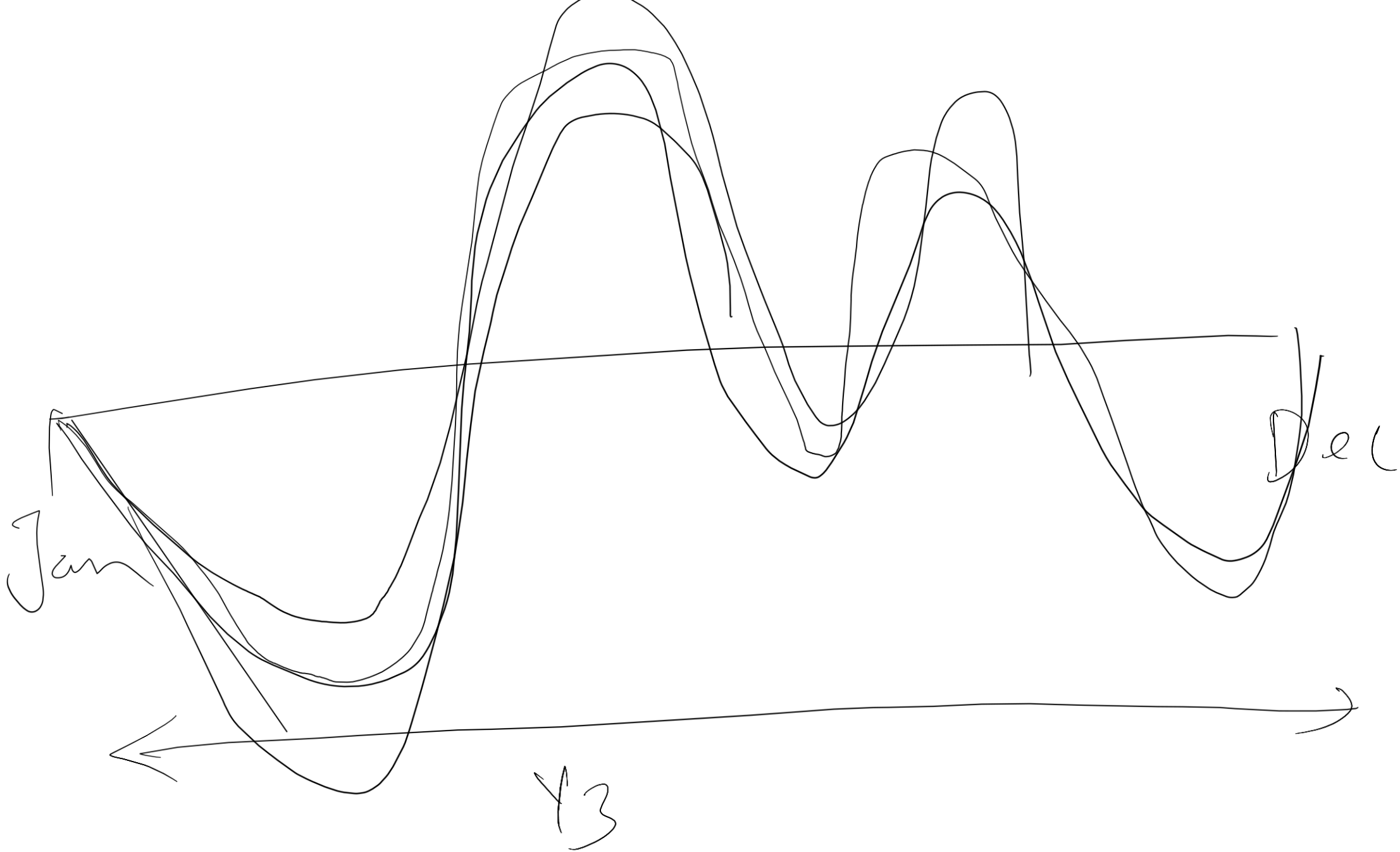
n-estimator = 15 , CV=10

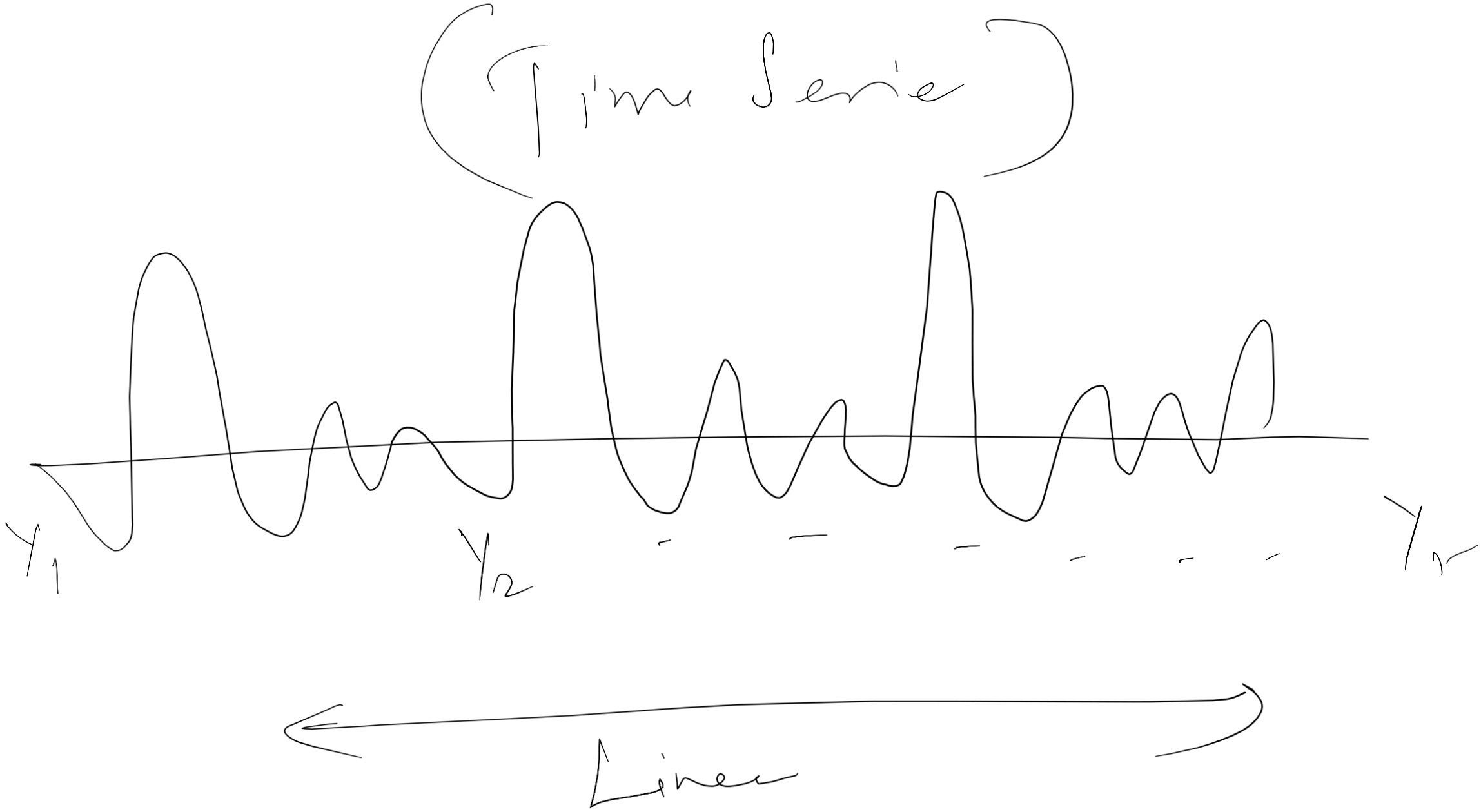


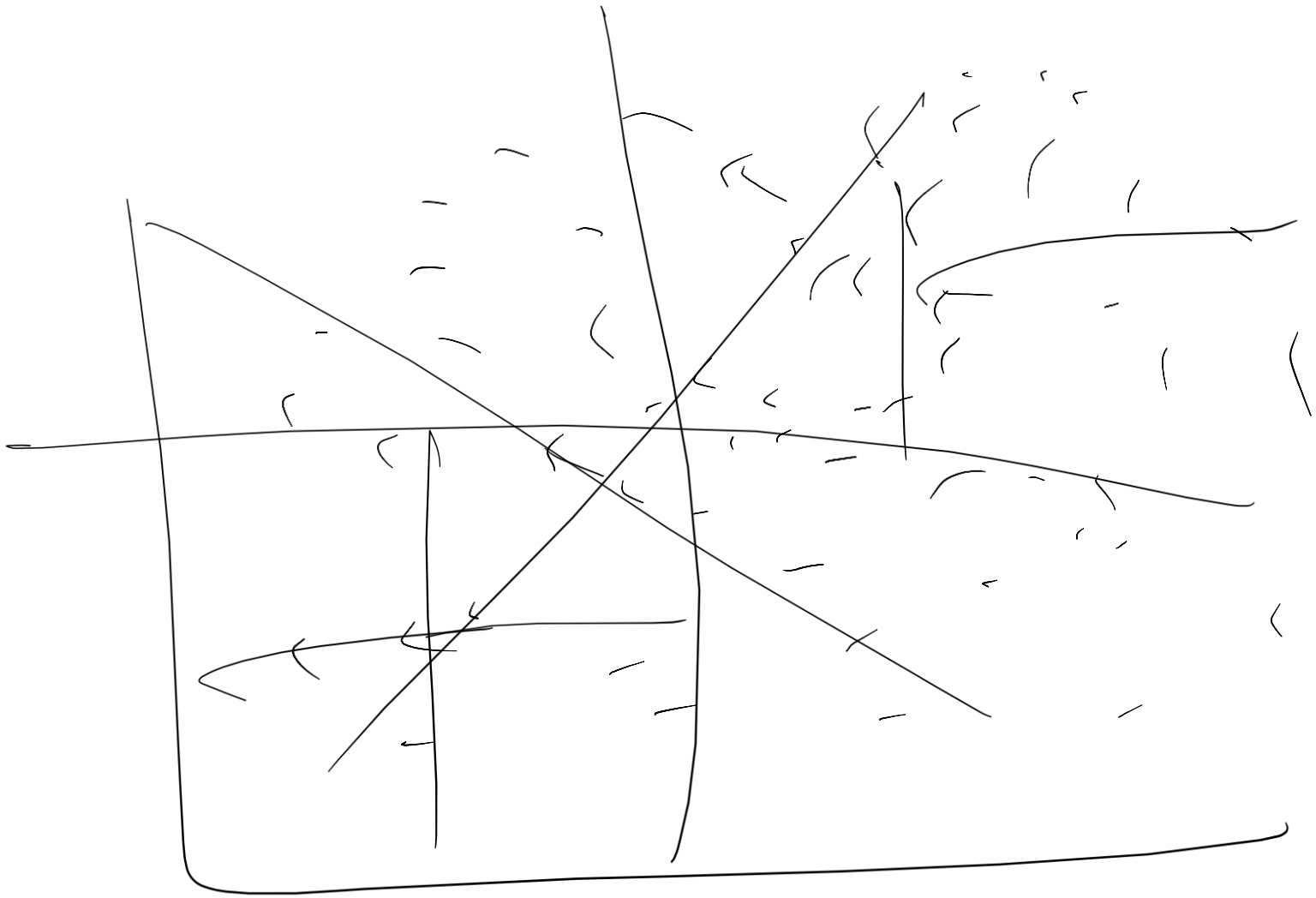
CV=1 → 52

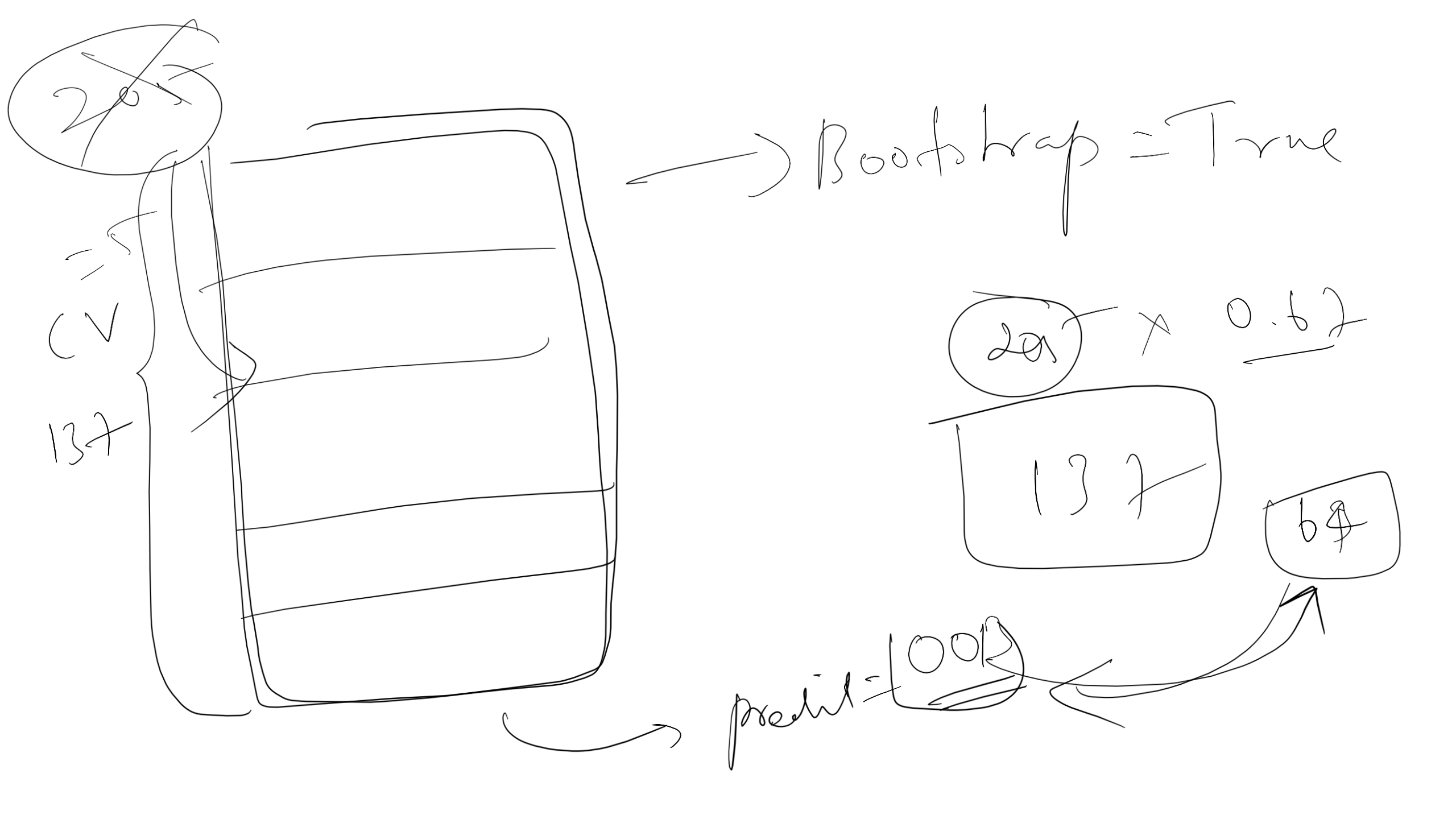
CV=2 → CV=5 CV=15

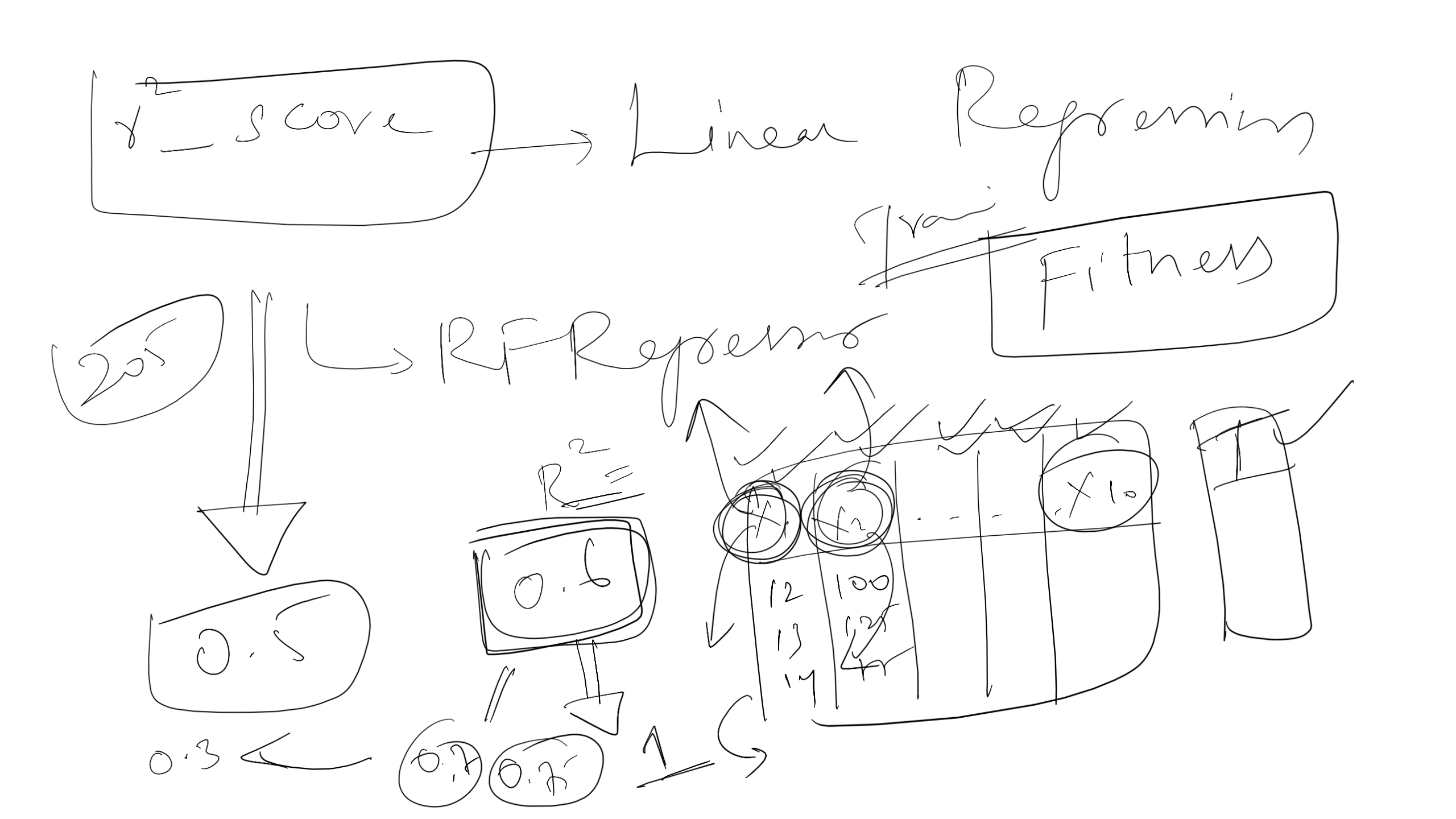
CV=0.85

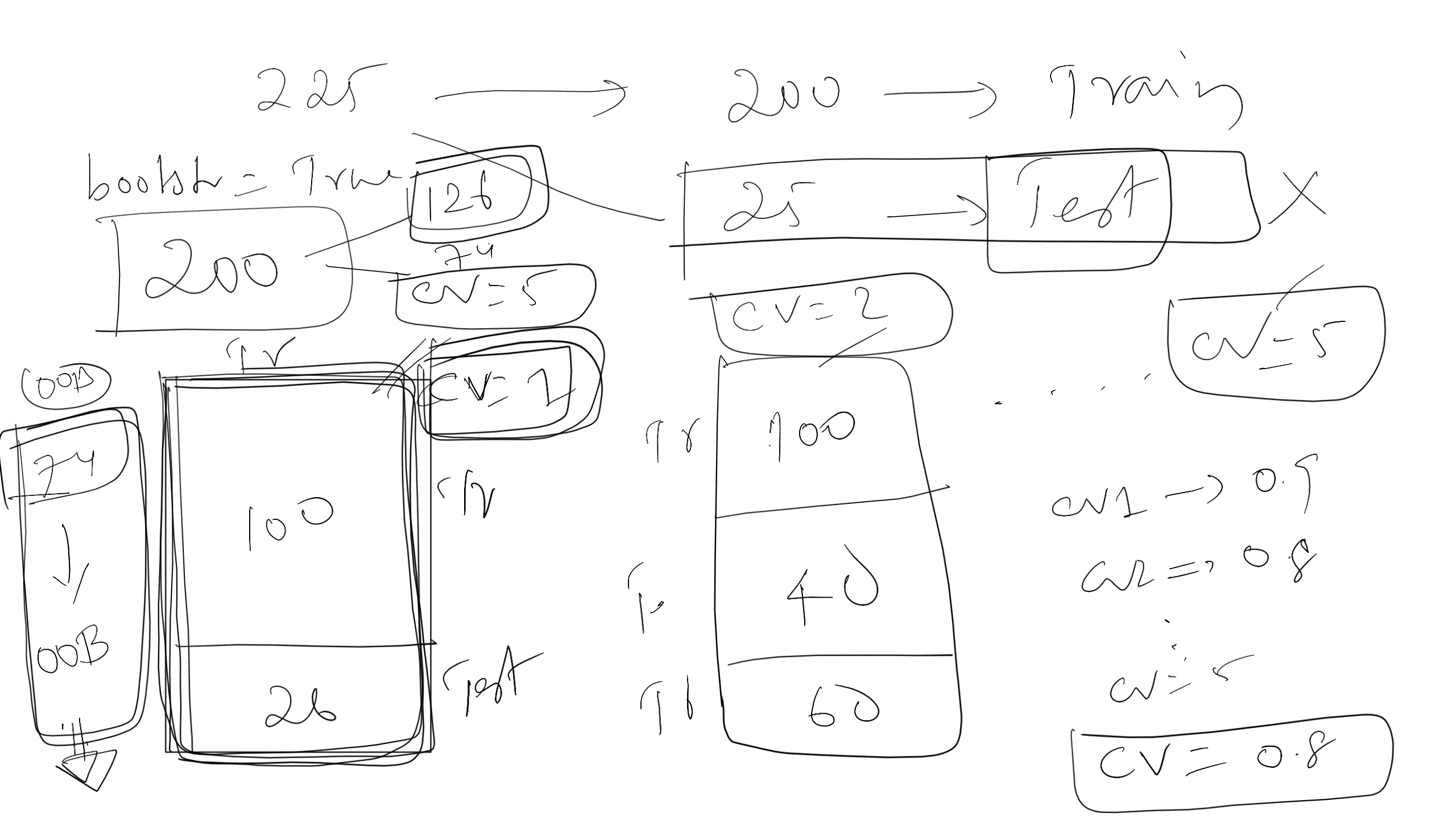

Jan
Dec
Y3


Time Series
Y_1
Y_2
Y_T
Time



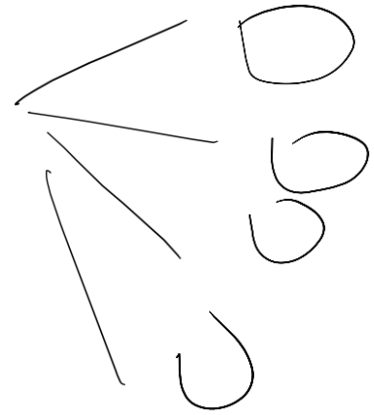

Bootstrap = True
CV
137
201 x 0.67
137
67
predict 100


r^2 Score
Linear Regression
Train
Fitness
RF Regressor
R^2
0.6
0.5
0.3
0.7
0.7
1
12 100
13 125
14
X10


225
200
bootstrap = True
126
200
74
cv = 5
cv = 2
cv = 5
25
left
X
100
40
60
cv1 → 0.5
cv2 → 0.8
cv = 0.8

n_jobs = -1

4 core



= cv

n_estimater = [50, 100, 200]

max_feature = [0.2, 0.3, 0.4, 0.5]

0.5 / 0.6

min_samples_split = [50, 100, 150]

sqrt(100)

min_samples_leaf = [20, 25, 30]

30

Bootstrapping = [True, False]

Feature Importance :- (RF)

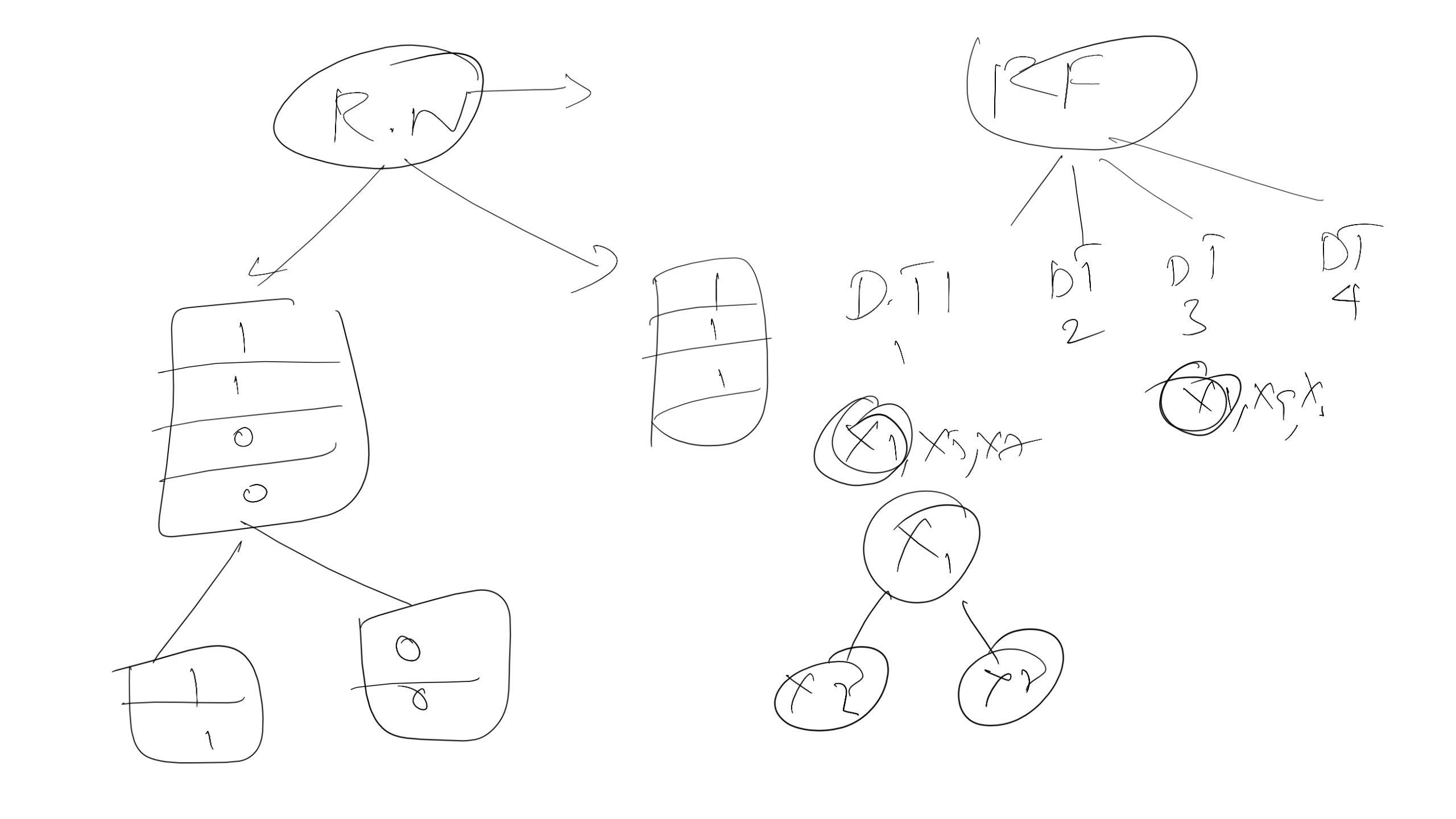
$X_1, X_2, X_3 \ldots\ldots\ldots X_{50}$

$X_{15} \rightarrow 0.50 \Rightarrow 1$

$X_{13} \rightarrow 0.15$

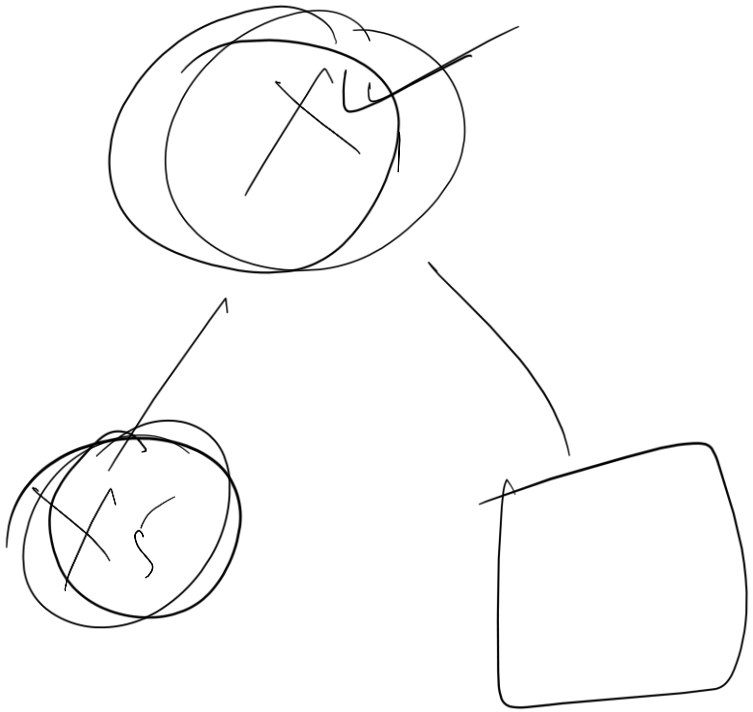
$X_{12} \rightarrow 0.05$

$X_7 \rightarrow 0.02$


R.N
1
1
0
0
1
1
0
1
1
1
0
0
D.T1
1
DT
2
DT
3
DT
4
X1, X3, X2
X1
X2
X2

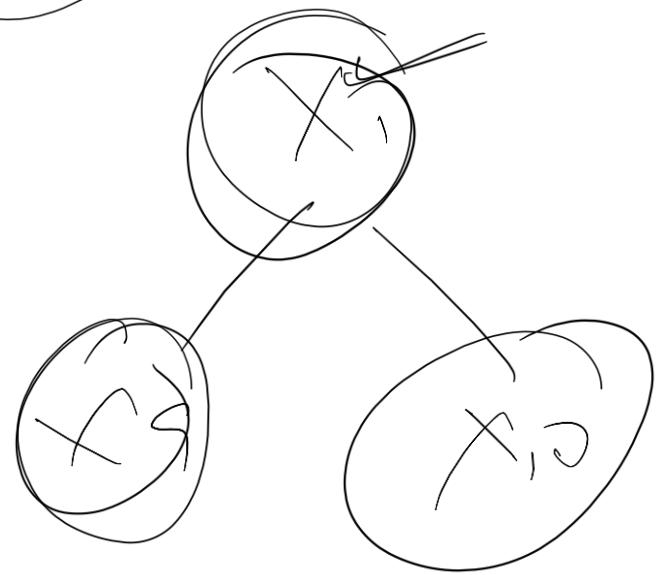
DT 1

X_1, X_3, X_7



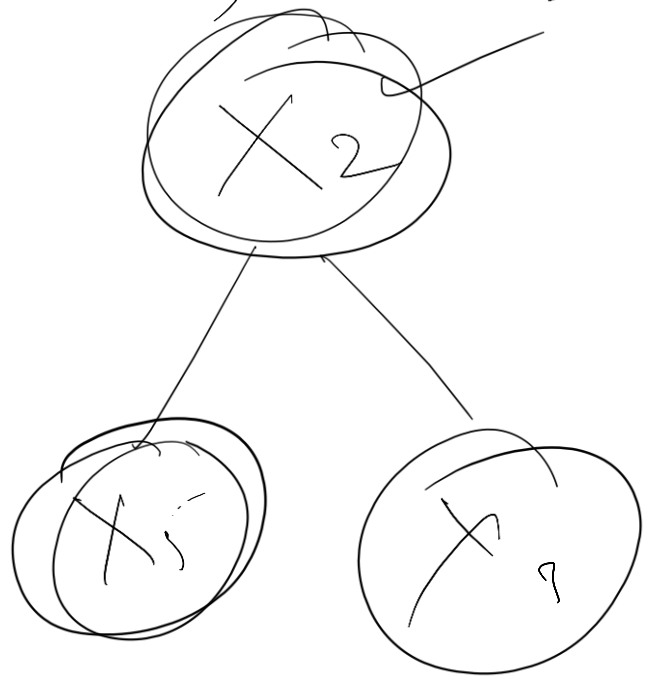
DT 2

X_1 X_9, X_{10}



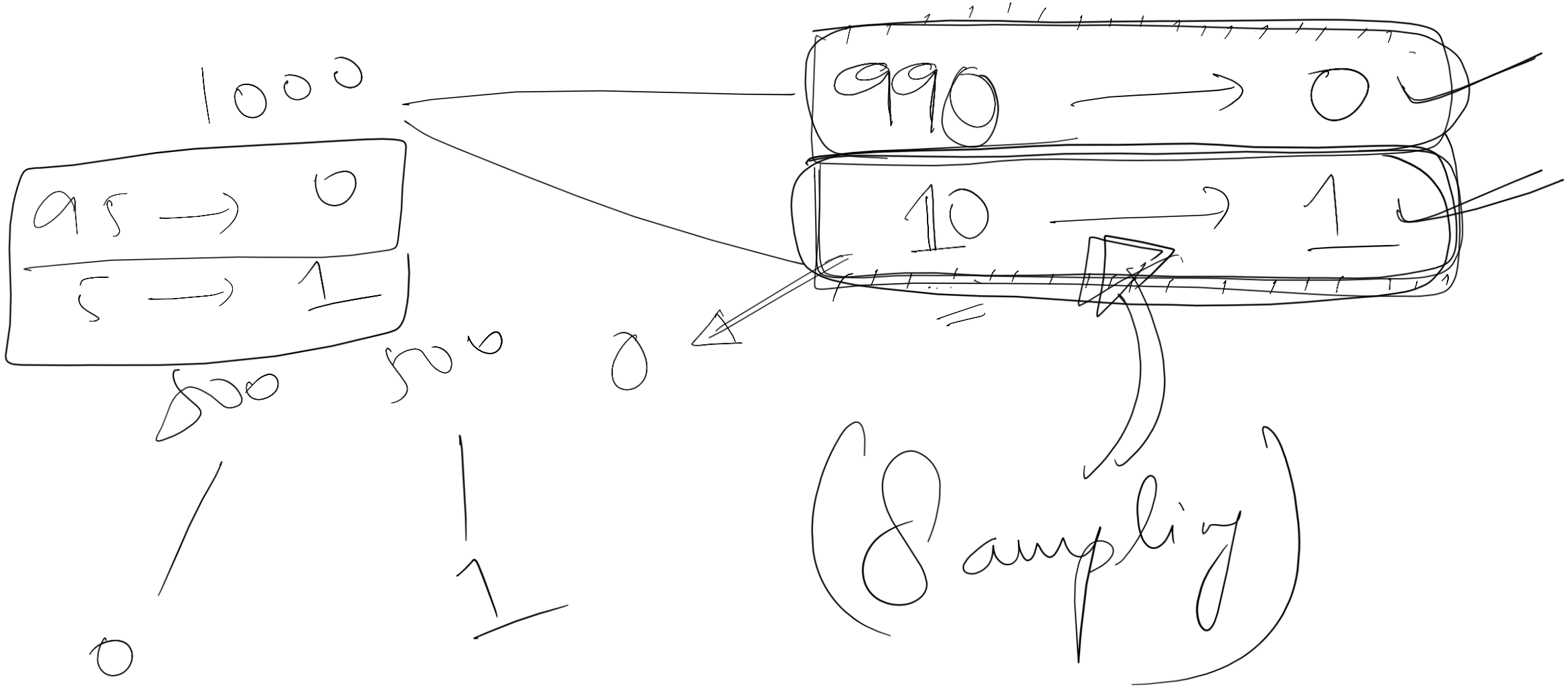
DT 3

X_5, X_2, X_3



Let's get back at

8:20 p.m (I.S.T)



50/50 40/60 30/70