

→ Sample ~ Correctional Factor

140 cr

20cr 14cr 10cr

200 VP

1400 Hm - 1

100 ~ RJ

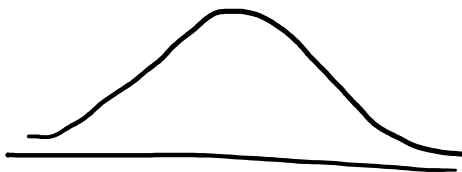
10
11

Vicki Long v-1

Myathand 21

→ Mean (Average)

-> Gaussian Dist:

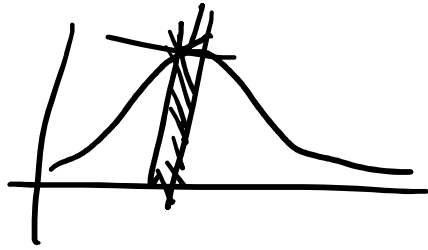


Distributions

レ

→ Set of nos: $[- \dots -]$ Visualizations

→ Set of nos: [- - . - - -] Visualizations (Graphing)



Mean: Referencing Parameter

→ Population: N & Sample: n

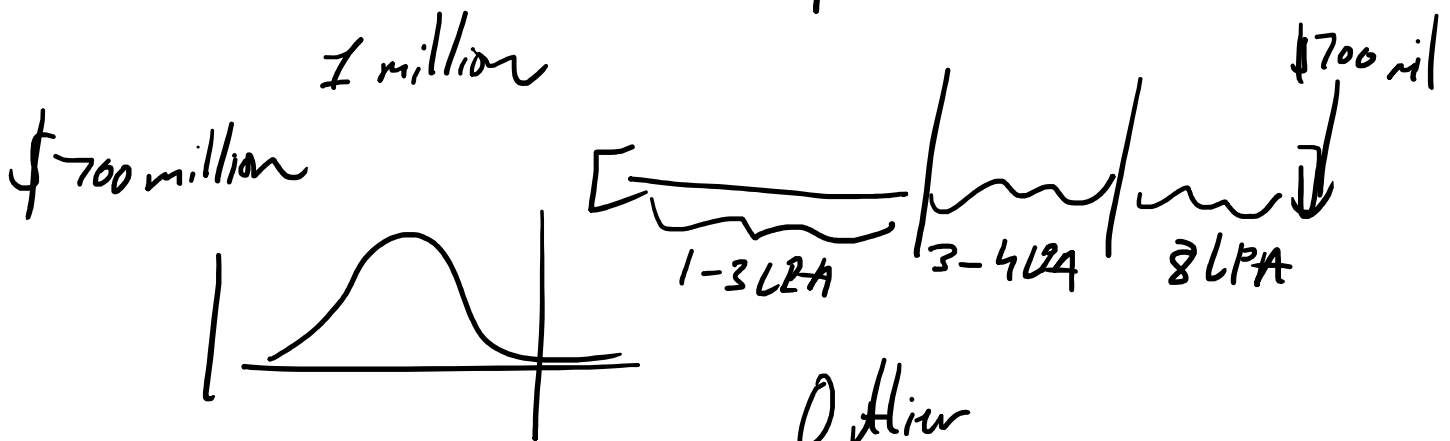
$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

(List)
[array]
 $k=0$
for i in range(n):
 $k += x[i]$
 $k = k/N$ $O(n)$

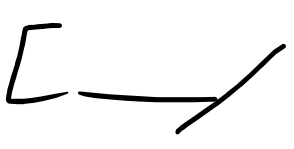


→ [1, 3, 5, 7, 11]

$$\bar{x} = \frac{1+3+5+7+11}{5} = \underline{\underline{5.4}}$$

→ People in Bandra ✓ Population data (N)



1  Outlier



-> Median :   

-> Placement Record

200 708 3.5
M.S 18.5

-> ~~ITM-AB~~ / C / L / S / K

Median x

  [1, 3, 5, 7, 11]

-> Coupling Mechanism : Dispersion

-> Measures of Dispersion :

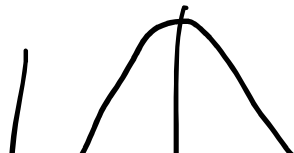
-> Deviation (Error, Residuals)



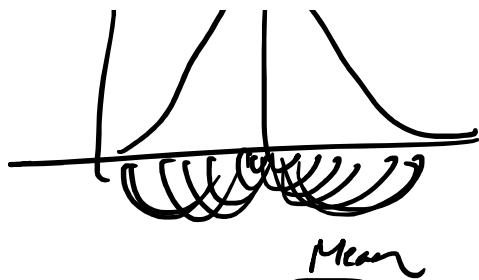
$$\sum (x_i - \bar{x})$$

-> Standard Deviation :

Empirical Law



[4.5 - 5]



$[4.5 - 5]$
 $[5 - 6]$
 $[6 - \infty]$

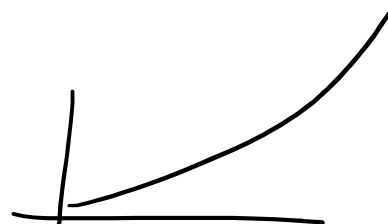
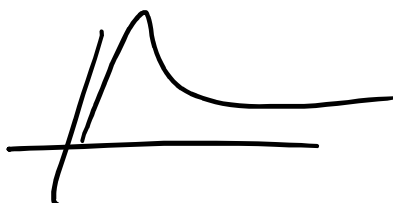
linear $O(n)$

\Downarrow
quadratic $O(n^2)$



$$\sigma^2 = \frac{\sum_{i=1}^N (n_i - \bar{n})^2}{N}$$

\rightarrow Variance :



$\sigma^2 \sim \text{F-test} \sim \text{F-Snedecor's Dist}$

$$\sigma^2 = \frac{\sum_{i=1}^N (n_i - \bar{n})^2}{N}$$