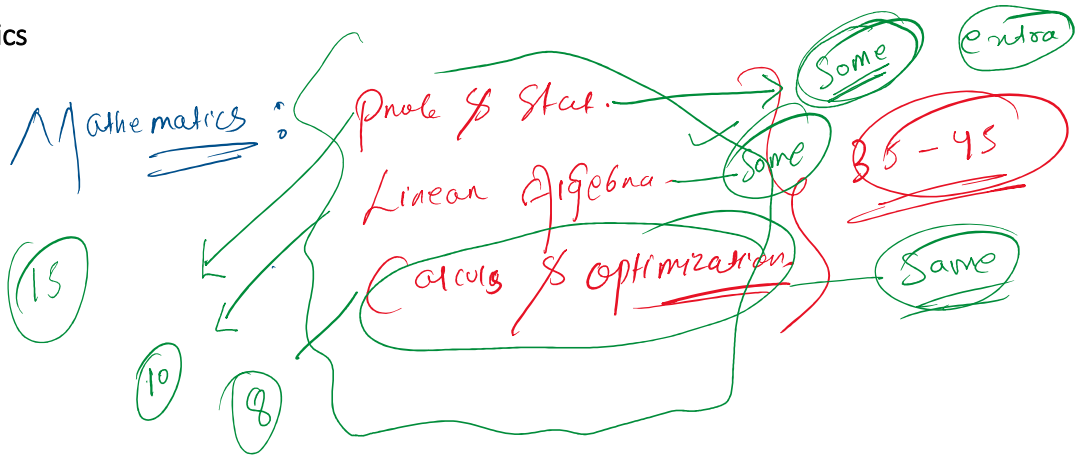
Probability and Statistics

21 September 2024 22:00



1. Introduction to Counting
2. Counting Technique.
3. Division of objects.

DS & CSE

1. Induction to Probability / Event / Sample space.
2. Classification of Events
3. Conditional Probability.
4. Baye's Theorem.
5. probability Inequality

DS & CSE

1. Random Variable and its properties.
   1. Pdf
   2. Cdf
   3. Pmf
   4. Relation b/w
   5. Standard Deviation, Variance.
   6. mean, median, mode.

DS & CSE

1. Distribution Theory
   1. Binomial Distribution.
   2. Bernouli Distribution.

1. Bernouli Distribution.
2. Negative Binomial Distribution.
3. Gaussian Distribution.
4. Geometric Distribution.
5. Uniform Distribution (Continous)
6. Poission Distribution.
7. Exponential Distribution.
8. Uniform Discrete.

CSE & DS

1. Bivariate Random Variable.
   - Discrete, Continous, Covariance, Conditional Expectation

DS

1. Central Limit Theorem
2. Sampling.
3. population mean / Variance.

DS.

1. Maximum Likelihood Estimations, Point Estimation.
2. Hypothesis Testing.
   - t-test
   - z-test
   - chi-Square.