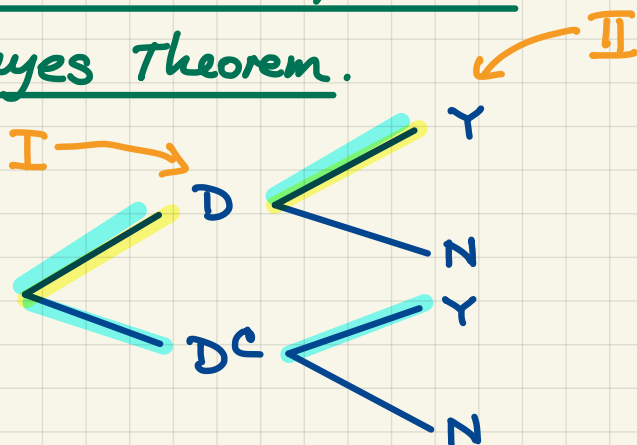


M339G: March 7<sup>th</sup>, 2025.

## Bayes Theorem.



In m362k.

$$P[D|Y] = ?$$

$$\begin{aligned} P[D|Y] &= \frac{P[D \cap Y]}{P[Y]} = \frac{P[D] \cdot P[Y|D]}{P[Y]} \\ &= \frac{P[D] \cdot P[Y|D]}{P[D] \cdot P[Y|D] + P[D^c] \cdot P[Y|D^c]} \end{aligned}$$

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## Linear Discriminant Analysis.

