

Important Questions in Classification

Why we log in LDA

- It avoids floating points and underflow when dealing with small numbers and multiply them **Log simplify into sums**, and computers might not caught the very small values resulting in **underflow**
- Simplify Derivations for [Discriminant Functions](#) and **Linear Decision Boundary** $\delta_k(x) = \delta_j(x)$ by removing the **Exponents** and **Products**
- Connects to [Logistic Regression](#)