1. Relevance feedback & query expansion

a. Jon looks for information about populations of banana slugs and issues a query "banana slug" to the search engine RFSearch, which supports relevance feedback. For this query, RFSearch delivers the following top-3 results:

- D₁="banana slug Ariolimax columbianus"
- D₂="Santa Cruz mountains banana slug"
- D₃="Santa Cruz Campus Mascot"

Jon marks the documents D₁, D₂ as relevant and D₃ as not relevant for his information need. RFSearch uses term frequency and the Rocchio RF algorithm with α = β = γ = 1. Which search query will be executed next based on the Jon’s feedback? Specify the weights for each query term. Sort the terms in alphabetical order.

b. Specify α, β, and γ values that facilitate a query retrieving pages similar to a relevant page within the search result using the Rocchio RF algorithm.