1. **TF/IDF weighting and the Vector Space Model**

Given is a document collection with two documents:

**Document 1:**
*good cook could cook as much cookies as a good cook who could cook cookies.*

**Document 2:**
*Best chocolate chip cookies recipe.*

a. Index the both documents using an inverted index. Apply case folding, use stop words list: {a, as}. Include TF and DF values at suitable positions in the index.

b. Compute the cosine similarity between these documents and the following queries. Apply the ltc weighting from the lecture.

\[ Q_1 = \text{cookies} \]
\[ Q_2 = \text{how to cook chocolate cake} \]

c. Explain the similarity scores! How would the result change with the Inc weighting?