CMSC 476676 Optional Homework 3

Compute big O (order of complexity) for the work required to compute the pairwise similarity scores for 10^5 docs, 10^6 terms, ~10^4 terms/doc using:

4. Brute Force

a. O(10^5\* 10^5 \*10^4) = **O(10^14)**

5. Doc-at-a-time

a. O(((10^5\*10^4)/10^6) \*10^4 \* log2(10^4) \*10^5) = O(10^12 \* log2(10^4))= **O(10^13)**

6. Term-at-a-time

a. O(10^5 \* 10^4 \* ((10^5 \* 10^4)/10^6)) = **O(10^12)**