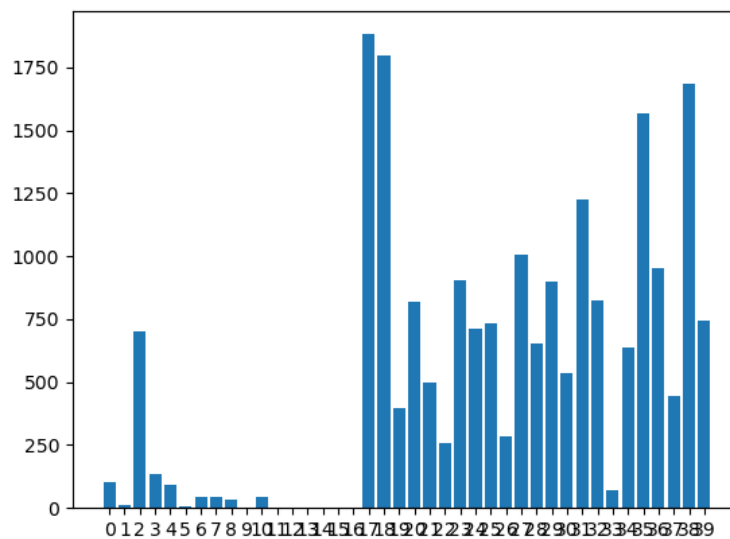
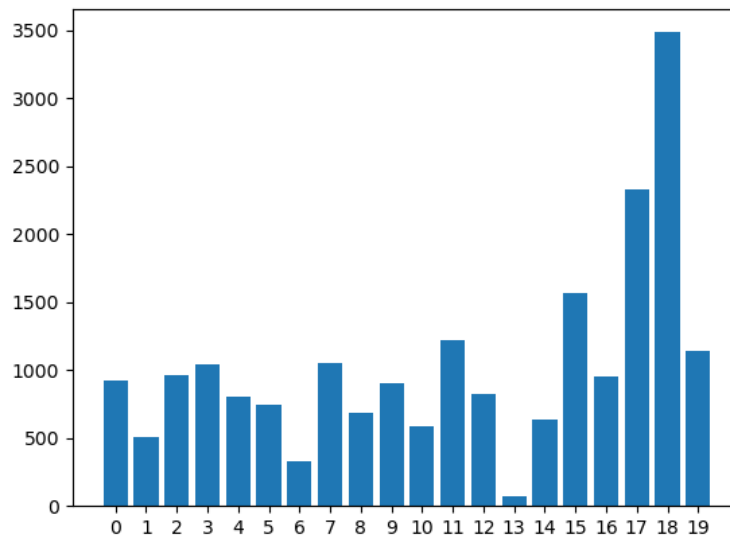


# Assignment 2. Sorting

Gilian Honkoop // 13710729

February 28, 2023

## Question 4.4



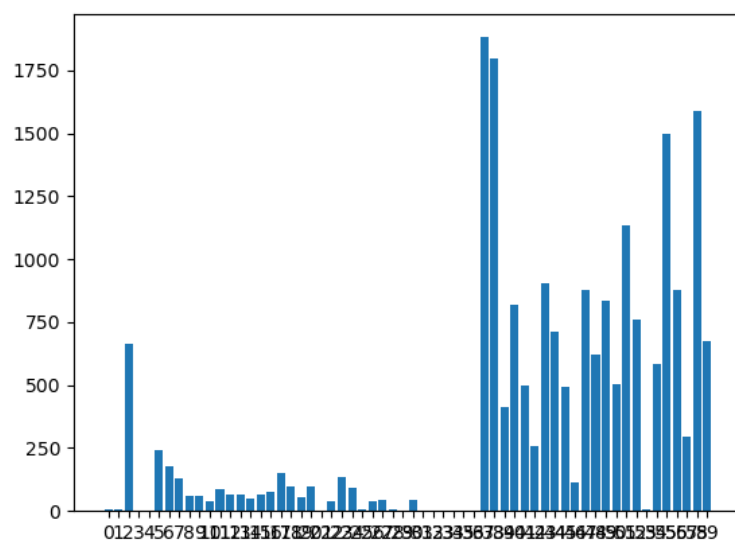
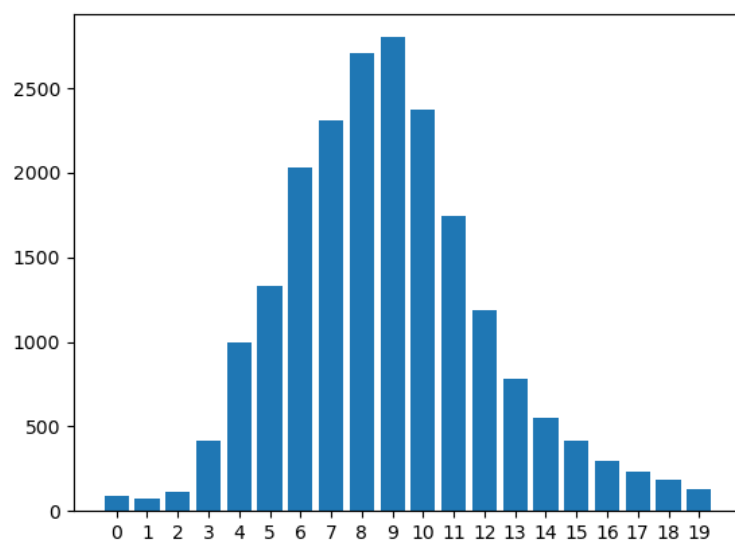


Figure 1: dictionary using hash\_first



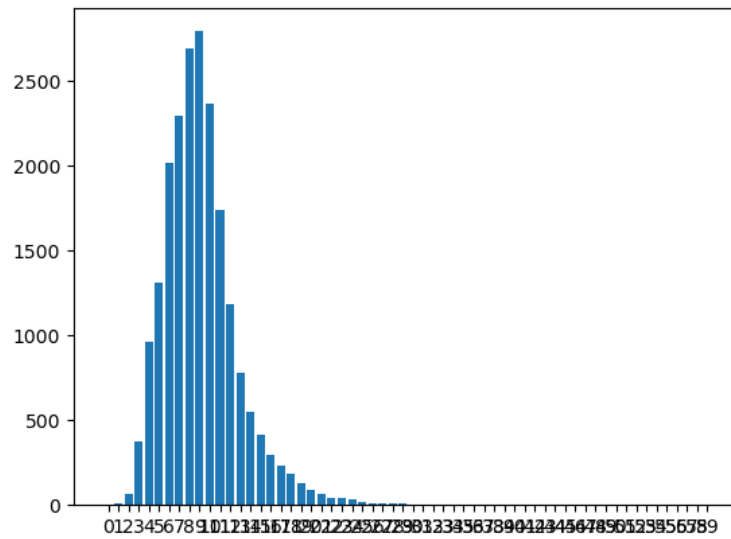
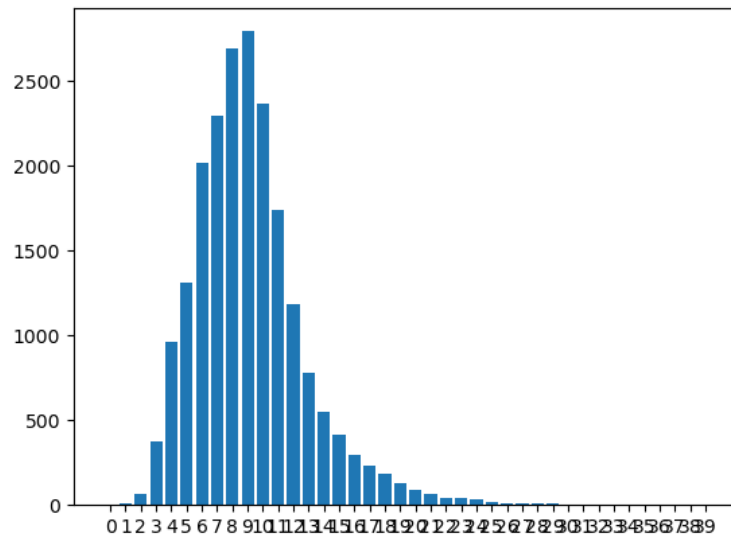
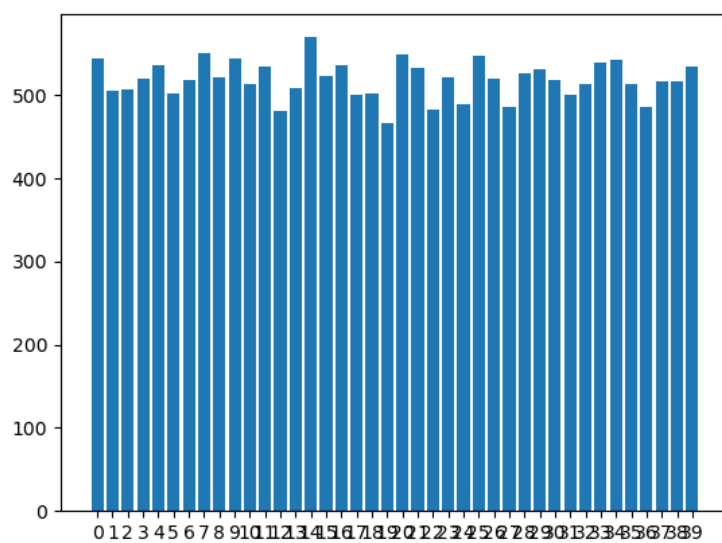
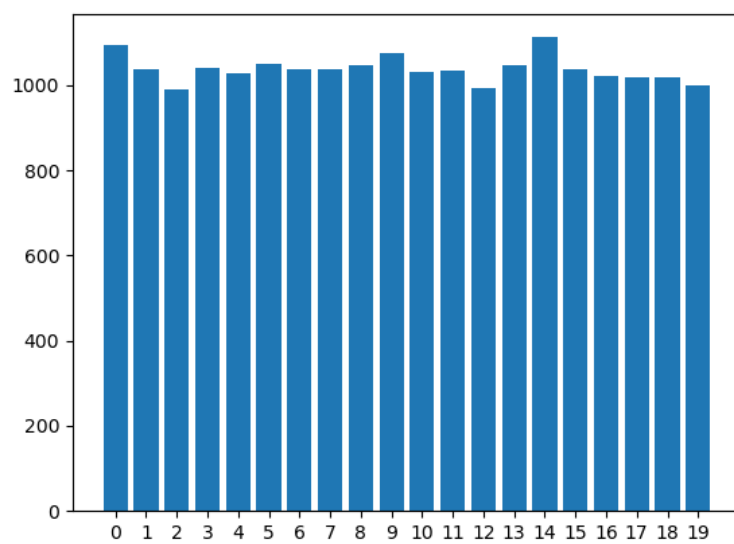


Figure 2: dictionary using hash.length



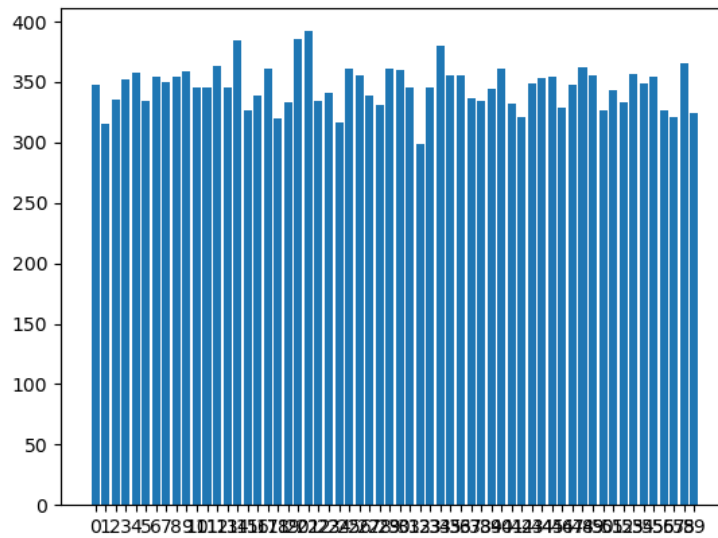


Figure 3: dictionary using hash\_sum

From these figures we can conclude that only the hash\_sum function spreads the words uniformly over the buckets and thus is the best hash function for our dictionary. hash\_first is the average choice in this case, since it doesn't spread uniformly but still uses most of the buckets. hash\_length seems to perform the worst, since at high bucket counts it leaves the majority of the buckets empty.