

QO Sheet 11

February 2021

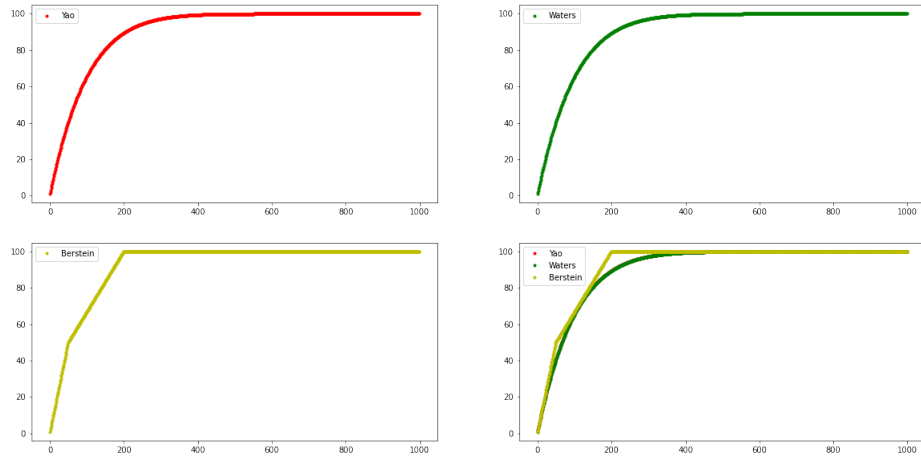
Exercise 1

$$m = 3, n = 2, k = 2, N = m * n = 6$$
$$E(\#accessed\ pages) = m * (1 - \sum_{i=0}^{k-1} \frac{N-i-n}{N-i}) = 3 * (1 - 4/6 * 3/5) = 1.8$$

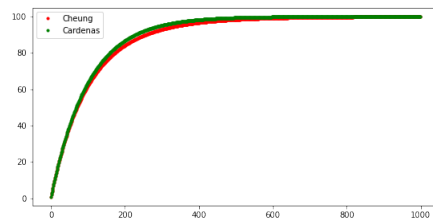
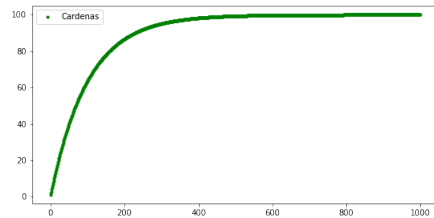
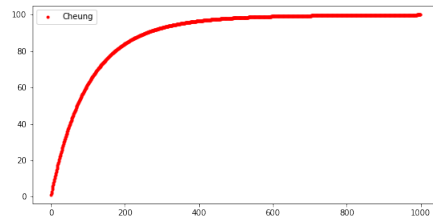
Exercise 2

$$m = 3, n = 2, k = 4, N = m * n = 6$$
$$E(\#accessed\ pages) = m * (1 - \sum_{i=0}^{n-1} \frac{N-i-1}{N-i-1+k}) = 3 * (1 - 5/9 * 4/8) = 39/18$$

Exercise 3



Exercise 4



Source code for ex3&4 can be seen [here](#)