# CS225 Homework 1

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Last Modified:
February 22, 2022

1. **Our Solution:**

   We suppose the list $L$ has members: $length$ denoting the length of the list, or number of elements in the list; $data[i]$ denoting the $i$-th element of the list. Assuming the index starts from 1.

   Therefore, just cut down the length of $l$ to disable elements after the $i$-th in the list and w obtain $L.length := L.length - k$, so the elements $data[i+1, i+2, \cdots, length]$ will be "ignored", or deleted.

   Since this only requires one instruction thus the complexity has nothing to do with $k$, the answer should be $\Theta(1)$.

2. (a) **Our Solution:**
   Solution to 2(i)

   (b) **Our Solution:**
   Solution to 2(ii)

   (c) **Our Solution:**
   Solution to 2(iii)

3. **Our Solution:**

4. **Our Solution:**