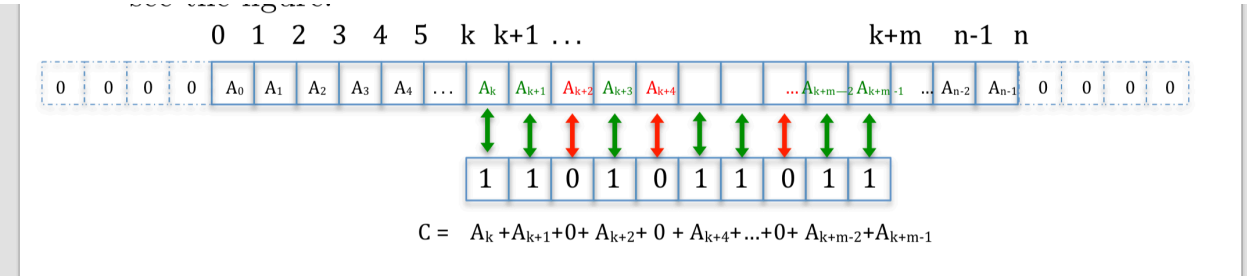
Question 3

The idea is to revert the encoding of the net, hence, let N' be the net sequence N in the reverse order. In other words, write it from right to left.

Then find the convolution of the long sequence(seashore) with the reverse sequence N'.

The new sequence = Seashore $*$ N';

As the visualizing convolution figure below:



We can look for the peak value from the new sequence.

The algorithm will run in time $(100n + n) \cdot \log(100n + n)$

We can assume that time complexity is $O(n \cdot \log n)$