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**Question 3**

**According to the question, we will set the number of fish of the shore form a sequence and the net is described as a sequence . We need to reverse the sequence B to get the . Firstly, we place the left end of sequence at position 0 of sequence A, then we will compute the to get the . In computing the convolution , the step 1 to convert both and to polynomial (the time complexity is ). Step 2 the polynomial applies Discrete Fourier Transform then multiplication them** **(the time complexity is ). Step 3 applies Inverse Fast Fourier Transform for step2 result (the time complexity is ). Finally, we will get the sequence . We set the is the largest. Secondly, we will move the position to , we will get the , then compare to the largest, if large than the largest, set the largest is . Until move to the last position, we can get the largest position. Above algorithm time complexity is ).**