Problem C
DJ Music Mixer
Time Limit: 1 second

Tom loves music and he is learning to become a professional DJ (disc jockey).

His first assignment is as follows. There are N audio clips. The i^{th} audio clip has the duration t_i seconds. Tom should sequentially play K audio clips continuously so that the total duration is between L and R (seconds), inclusively. Each of the N audio clips can be selected to play multiple times.

A DJ sequence is an array A with K audio clip indices:

$$A = (a_1, a_2, \ldots, a_K) \text{ where } a_i \in \{1,2,\ldots, N\} \text{ for } 1 \le i \le K.$$

Tom should calculate how many different DJ sequences he can mix with N audio clips. Two DJ sequences A and B are different if there exists an index $1 \le j \le K$ such that $a_j \ne b_j$.

Input

The first line contains three integers: N, K and Q – the number of cases ($1 \le N, Q, K \le 10^5$).

The second line contains N integers $t_1, t_2, \ldots, t_N$, the duration of audio clips ($1 \le t_i \le 5 \times 10^4$). Numbers are separated by white spaces.

Each of the following Q lines contains two integers L and R, the minimum and maximum duration time to play the sequence of clips for each test case ($1 \le L \le R \le 5 \times 10^4$).

Output

Display in Q lines the results of each test case. Since the answer can be very large, output it modulo 786433.

Sample Input	Sample Output
5 1 5 10 20 30 40 50 10 20 10 30 10 40 10 50 20 50	2 3 4 5 4