

1. The Book Game

You are given an array **A** of **K** integers where **A_i** denotes page number of a book. To compute the score, you can either add or multiply the last digit of the page numbers.

You have to find the maximum score you can get. Since the score can be quite large, output the score **modulo 1000000007**

Note: The book contains **N** pages. Also, you need to follow the order in which the page numbers are given in the array. Initially, your score is 0.

Input format :

- First line: Two space separated integers **N** and **K**.
- Next line: **K** space separated integers denoting the page numbers.

Output format :

- Output the maximum score you can get. Print it **modulo 1000000007**

Input Constraints

- $1 \leq N \leq 109$
- $1 \leq K \leq 106$

2. Kth candy

You have **N** pieces of candies. Every day, a piece of candy is replaced with another one. The order of replacement is described by **Q** queries containing the following:

- **i**: The index of a candy to be replaced
- **x**: The sweetness of the replacement candy
- **K**: An integer

For each query find the **K**th smallest value of sweetness of candy after replacement.

Input format

- The first line of input contains **N**, the number of candies.
- Next line contains **N** numbers (**a₁, a₂, ..., a_N**), where **a_i** denotes the sweetness of **i**th candy.
- The third line of input contains two integers **Q** and **R**, the number of queries and **R=3** for, number of integers in each query.
- Followed by **Q** lines each containing three integers **i**, **x** and **K**.

Output format

For each query output the **Kth** smallest value of sweetness among the candies.

Constraints

- $1 \leq N, Q \leq 100000$
- $1 \leq a_i \leq 1000000$
- $1 \leq i \leq N$
- $1 \leq x, K \leq 1000000$.