Yudhishtira was a rich king, but was also frugal, and when he built his grand golden palace at Indraprastha, he found that he was running over budget. Draupadi wanted too many dressing rooms, Bhima wanted a big workout room, and Arjuna had so many divine benefactors who presented him with weapons that he needed many rooms to store them. So he decided to send emissaries to the south to shop for gold, as he knew that gold prices at different cities along the road to the south were often low.

The big road to the south of the empire had a total of $C$ cities along it, and the gold price at $i$-th city was $p[i]$, where $1 \leq i \leq C$.

A number of shoppers, $N$ to be precise, decided to each go along the road; the $k$-th shopper ($1 \leq k \leq N$) would visit the first $s[k]$ consecutive cities, and buy gold at the cheapest price he can find among the first $s[k]$ cities. After coming back, all shoppers will sell the gold at the price at which they bought the gold (too fierce competition).

Yudhishtira can choose to buy the needed gold from any one of the shoppers. Given the list of prices $p[i]$ and the number of cities each shopper visited $s[k]$, find the lowest price that Yudhishtira had to pay for the gold.

**Input**

The input begins with a single positive integer $T$ on a line by itself, indicating the number of the cases following, each of them as described below.

- The first line contains $C$, the total number of cities along the road.
- The second line contains $C$ space separated integers, the prices at each city $p[1], p[2], \ldots, p[C]$.
- The third line contains $N$, the number of shoppers.
- The fourth line contains $N$ space separated integers, the number of cities visited by each shopper, $s[1], s[2], \ldots, s[N]$.

**Output**

For each test case, the output must follow the description below.

The output should have a single integer on a line by itself: the lowest price at which Yudhishtira can buy the gold.

**Constraints:**

- $1 \leq C \leq 10000$
- $1 \leq N \leq 10000$
- $0 \leq p[i] \leq 10^6$
- $1 \leq s[k] \leq C$

**Explanation:** There are 5 cities.

The first city has price 3, the second city has price 4, so on. There are 3 shoppers who visit 1, 3 and 2 cities respectively. The lowest price each encounters is 3, 1, and 4 respectively. So the cheapest gold is purchased by the second shopper, at the price of 1.

**Sample Input**

```
1
5
3 4 1 5 2
3
1 3 2
```

**Sample Output**

```
1
```