**Problem Statement**

You are a waiter at a party. There is a pile of numbered plates. Create an empty answers array. At each iteration, i, remove each plate from the top of the stack in order. Determine if the number on the plate is evenly divisible by the ith prime number.

If it is, stack it in pile Bi. Otherwise, stack it in stack Ai. Store the values in Bi from top to bottom in Ai. In the next iteration, do the same with the values in stack Ai. Once the required number of iterations is complete, store the remaining values in Ai in answers, again from top to bottom. Return the answers array.

**Input Format**

The first line contains two space separated integers, n and q.The next line contains n space separated integers representing the initial pile of plates, i.e., A.

**Constraints**

1 <= n <= 5x104

2 <= number[i] <= 104

1<= q <= 1200