# Waiter ☆



You are a waiter at a party. There are $N$ stacked plates on pile $A_0$. Each plate has a number written on it. Then there will be $Q$ iterations. In $i$-th iteration, you start picking up the plates in $A_{i-1}$ from the top one by one and check whether the number written on the plate is divisible by the $i$-th prime. If the number is divisible, you stack that plate on pile $B_i$. Otherwise, you stack that plate on pile $A_i$. After $Q$ iterations, plates can only be on pile $B_1, B_2, \ldots, B_Q$, $A_Q$. Output numbers on these plates from top to bottom of each piles in order of $B_1, B_2, \ldots, B_Q$, $A_Q$.

**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., $A_0$. The leftmost value represents the bottom plate of the pile.

**Constraints**

$1 \leq N \leq 5 \times 10^4$
$2 \leq number_i \leq 10^4$
$1 \leq Q \leq 1200$

**Output Format**

Output $N$ lines. Each line contains a number written on the plate. Printing should be done in the order defined above.

**Sample Input 0**

```
5 1
3 4 7 6 5
```

**Sample Output 0**

```
4
6
3
7
5
```

**Explanation 0**

Initially:

$A_0$ = [3, 4, 7, 6, 5]<-TOP

After 1 iteration:

$A_0$ = []<-TOP

$B_1$ = [6, 4]<-TOP

$A_1$ = [5, 7, 3]<-TOP

We should output numbers in $B_1$ first from top to bottom, and then output numbers in $A_1$ from top to bottom.

**Sample Input 1**

```
5 2
3 3 4 4 9
```

**Sample Output 1**

```
4
4
```

Author dcod5

Difficulty Medium

Max Score 75

Submitted By 7778

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9
3
3

**Explanation 1**

Initially:

$A_0$ = [3, 3, 4, 4, 9]<-TOP

After $1^{st}$ iteration:

$A_0$ = []<-TOP

$B_1$ = [4, 4]<-TOP

$A_1$ = [3, 3, 9]<-TOP

After $2^{nd}$ iteration:

$A_1$ = []<-TOP

$B_1$ = [4, 4]<- TOP

$B_2$ = [3, 3, 9]<-TOP

We should output numbers in $B_1$ first from top to bottom, and then output numbers in $B_2$ from top to bottom.

Java 8

1

Line: 1 Col: 1

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