# Range Modular Queries

Given an array, $A = [a_0, a_1, \ldots, a_{n-1}]$, perform $q$ queries in the form `left right x y`. For each query, find the number of elements in $A$ satisfying the following criteria and print it on a new line:

$$left \leq i \leq right$$
$$a_i \equiv y \pmod{x}$$

**Note:** We can write $a_i \equiv y \pmod{x}$ as $a[i] \% x == y$ in most popular programming languages.

**Input Format**

The first line contains two space-separated integers describing the respective values of $n$ (the size of $A$) and $q$ (the number of queries).
The second line has $n$ space-separated integers describing the respective values of $a_0, a_1, \ldots, a_{n-1}$.
Each of the $q$ subsequent lines describes a query in the form `left right x y`.

**Constraints**

- $1 \leq n, q \leq 4 \times 10^4$
- $0 \leq a_i \leq 4 \times 10^4$
- $0 \leq left \leq right < n$
- $1 \leq x \leq 4 \times 10^4$
- $0 \leq y < x$

**Output Format**

For each query, print an integer denoting the number of array elements satisfying the given criteria on a new line.

**Sample Input 0**

```
5 3
250 501 5000 5 4
0 4 5 0
0 4 10 0
0 4 3 2
```

**Sample Output 0**

```
3
2
2
```

**Explanation 0**

We perform the following $q = 3$ queries on $A = [250, 501, 5000, 5, 4]$:

1. `0 4 5 0`: Each $i$ in $\{0, 2, 3\}$ satisfies $a[i] \% 5 == 0$, so we print $3$ on a new line.
2. `0 4 10 0`: Each $i$ in $\{0, 2\}$, $a[i] \% 10 == 0$, so we print $2$ on a new line.
3. `0 4 3 2`: Each $i$ in $\{2, 3\}$, $a[i] \% 3 == 2$, so we print $2$ on a new line.