

1001 – Ishrak's Tough Luck

Time limit – 1 second(s)	Memory limit – 32 MB
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Immediately after the announcement of lockdown due to the CoViD-19 outbreak, Ishrak rushed home to his native village from Dhaka. From his bus, he saw a large crop field. The field was a $n \times m$ rectangle, divided into 1×1 cells. Some cells were wasteland, and the other cells each contained exactly one of x crops.

After careful observation, Ishrak found that the crops in each cell were planted in the following procedure:

- Assume that the rows are numbered 1 to n from top to bottom and the columns are numbered 1 to m from left to right, and a cell in row i and column j is represented as (i, j) .
- First, each field is either cultivated or waste. Crop plants will be planted in the cultivated cells in the order of $(1, 1) \rightarrow \dots \rightarrow (1, m) \rightarrow (2, 1) \rightarrow \dots \rightarrow (2, m) \rightarrow \dots \rightarrow (n, 1) \rightarrow \dots \rightarrow (n, m)$. Waste cells will be ignored.
- Each of the x crop plants are planted in cyclic order. That means crop C_1 is planted in the first cell, C_2 in the second cell.... C_x in the x^{th} cell, C_1 in the $(x+1)^{\text{th}}$ cell and so on.

Write a program to help him determine the crop plants in certain cells.

Input:

In the first line there are five positive integers n, m, x, k, t ($1 \leq n \leq 5 \cdot 10^4$, $1 \leq m \leq 5 \cdot 10^4$, $1 \leq x \leq 10^3$, $0 \leq k \leq 10^3$, $1 \leq t \leq 10^3$), each of which represents the height of the field, the width of the field, the number of crop types, the number of waste cells and the number of queries that ask the kind of crop plants in a certain cell.

The next x lines contain the name of the crop plants. The names will not have more than 15 characters.

Following each k lines contains two integers a, b ($1 \leq a \leq n$, $1 \leq b \leq m$), which denotes a cell (a, b) is waste. The same cell will not appear more than once in this section i.e. all cells are distinct.

Following each t lines contains two integers i, j ($1 \leq i \leq n$, $1 \leq j \leq m$), which is a query that asks you the kind of crop plants of a cell (i, j) .

Output:

For each query, if the cell is waste, print Waste. Otherwise, print the name of crop plants in the cell.

Sample input
4 5 3 5 6 Pumpkins Eggplants Coconuts 4 3 1 3 3 3 2 5 3 2 1 3 1 4 2 3 2 4 1 1 1 1
Sample output
Waste Coconuts Pumpkins Eggplants Pumpkins Pumpkins

Setter: Prothito Shovon Majumder Turno