Write a program to solve the linear equation systems $(A_{nm} * x_{m1} = y_{n1})$ in the given input file by QR decomposition method. Print a possible solution if exists; otherwise, print "N".

Input format:

1. First number is number of test cases.
2. Next two numbers are n , m respectively.
3. Next "n*m" numbers are entries of "A" which are in row order.
4. Next "n" numbers are entries of "y" .

Output format:

Print the solutions in a text file. Print each number or character ("N") in a line of file.

Input file:

$$A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}, \; y = \begin{pmatrix} 5 \\ 6 \end{pmatrix}, \; x = \begin{pmatrix} -4 \\ 4.5 \end{pmatrix}$$

```
1
2
2
1
2
3
4
5
6
```

Output file:

```
-4
4.5
```

Note : Don't use any library.

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