Botto

Time Limit : 1s

Botto is an unfinised programming robot. It can only accept to move forward when it's sensor detect a red color tile in front of it.
Beside move forward, it has an ability to shift one row of tiles in front of it (assume that the tile can be moved), to the left or to the right.
Make a list of commands, that will commands Botto to pass through RxC tiles.
The commands consist of
"`forward`" - Botto move forward
"`left`" - Botto shift one row next to itself to the left
"`right`" - Botto shift one row next to itself to the right
"`finish`" - Botto play a victory song
The tiles are arranged by RxC grid and each row has one red tile.

Input

The input consists of R, C, B each denotes number of rows, number of columns, and botto column position.
The next R lines, consists of one number R_i, each denotes column position of red tile.

Every column is 1-indexed.

Constraints

$1 \le R, C \le 20$.
$1 \le B, R_i \le C$.

Output

The output list of commands, that can make botto move forward R rows and play a song.
Note: left and right are based on botto view.

Sample Input

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

Sample Output

```
left
forward
right
right
forward
right
forward
left
forward
forward
finish
```

Sample Explanation

Botto starting position

```
    C   1 2 3 4
R         B
1       R 0 0 0
2       0 0 0 R
3       0 0 R 0
4       R 0 0 0
5       0 R 0 0
```

Botto finished position

```
    C   1 2 3 4
R
1 >       R 0 0 0
2 < 0 0 0 R
3 <   0 0 R 0
4 >       R 0 0 0
5 |     0 R 0 0
          B
```