CROC | pr0gramming championship

HOME   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   HELP   VK CUP 2016 🏆   CROC 2016 🏆   TECHNOCUP 2016

PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   STANDINGS   CUSTOM INVOCATION

A. Parliament of Berland

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

There are n parliamentarians in Berland. They are numbered with integers from 1 to n. It happened that all parliamentarians with odd indices are Democrats and all parliamentarians with even indices are Republicans.

New parliament assembly hall is a rectangle consisting of $a \times b$ chairs — a rows of b chairs each. Two chairs are considered neighbouring if they share as side. For example, chair number 5 in row number 2 is neighbouring to chairs number 4 and 6 in this row and chairs with number 5 in rows 1 and 3. Thus, chairs have four neighbours in general, except for the chairs on the border of the hall

We know that if two parliamentarians from one political party (that is two Democrats or two Republicans) seat nearby they spent all time discussing internal party issues.

Write the program that given the number of parliamentarians and the sizes of the hall determine if there is a way to find a seat for any parliamentarian, such that no two members of the same party share neighbouring seats.

Input

The first line of the input contains three integers n, a and b ($1 \le n \le 10\,000$, $1 \le a, b \le 100$) — the number of parliamentarians, the number of rows in the assembly hall and the number of seats in each row, respectively.

Output

If there is no way to assigns seats to parliamentarians in a proper way print -1.

Otherwise print the solution in a lines, each containing b integers. The j-th integer of the i-th line should be equal to the index of parliamentarian occupying this seat, or 0 if this seat should remain empty. If there are multiple possible solution, you may print any of them.

Examples

input
```
3 2 2
```
output
```
0 3
1 2
```

input
```
8 4 3
```
output
```
7 8 3
0 1 4
6 0 5
0 2 0
```

input
```
10 2 2
```
output
```
-1
```

Note

In the first sample there are many other possible solutions. For example,

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→ Submit?

Language: GNU G++11 5.1.0 ▼
Choose file: [Choose File] No file chosen

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

[Submit]

→ Last submissions

Submission	Time	Verdict
16741525	Mar/16/2016 13:23	**Pretests passed**
16740931	Mar/16/2016 12:52	Wrong answer on pretest 1

→ Score table

	Score
Problem A	500
Problem B	1000
Problem C	1500
Unsuccessful submission	-50
Resubmission	-50

* If you solve problem on 01:29 from the first attempt

```
3 2
0 1
```
and

```
2 1
3 0
```
The following assignment

```
3 2
1 0
```
is incorrect, because parliamentarians 1 and 3 are both from Democrats party but will occupy neighbouring seats.