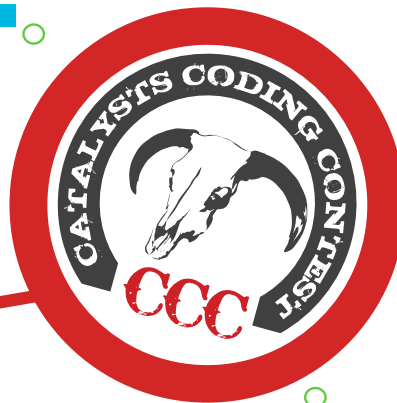


# Addictive Game



**Catalysts**  
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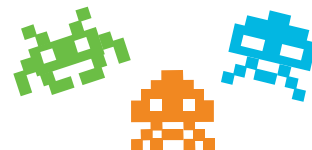
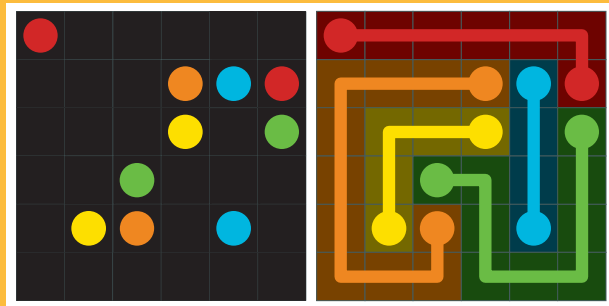




Hi,

The topic of this contest is the addictive online and mobile game **Flow**. *Please read the requirements carefully, since they may differ from the standard game, and we don't suppose that you have ever played the game.*

In general the **point of the game** is to connect the points of the same color with lines. Each line starts at a point and ends in a point with the same color. The lines may not intersect.





**First, let's get familiar with the board and the positions.**

The game is played on a board with *rows* rows and *cols* columns. There are  $rows * cols$  positions on the board numbered from 1 to  $rows * cols$ .

### Vocabulary

- *rows* is the number of rows of the board
- *cols* is the number of columns of the board.
- *Position*: where  $1 \leq Position \leq rows * cols$

A position may also be defined as the pair  $(r, c)$ , where  $r$  is the row number and  $c$  is the columns number.

#### For Example

Given a 6 x 4 board:

- $1 == (1,1)$
- $11 == (3,3)$
- $24 == (6,4)$

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24



### Input

consisting only of numbers separated by a single space

rows cols numberOfPositions Position<sub>1</sub> Position<sub>2</sub> ... Position<sub>numberOfPositions</sub>

### Output

$r_1 c_1 r_2 c_2 \dots r_{\text{numberOfPositions}} c_{\text{numberOfPositions}}$

$r_i$  means the row number of positions  $i$

$c_i$  means the column number of position  $i$

use a single space to separate the numbers

#### Example input

number of positions

6 4 3 1 11 24

rows cols positions

#### Example output

1 1 3 3 6 4

row number of position 24 column number of position 24