

Spiral

[Wersja polska](#)

[English version](#)

5	13	12	11	10	25
4	14	3	2	9	24
3	15	4	1	8	23
2	16	5	6	7	22
1	17	18	19	20	21
	1	2	3	4	5

Input

There is unknown number of tests. Each of them consists of one line in which appear two integers: n ($0 < n \leq 10^6$; n always odd) - size of the square matrix and m ($0 < m \leq n^2$) - the number of the chosen cell.

Output

For each test print index of the row and index of the column of the chosen cell which is determined by m .

Example

Input:

7 28
5 13
1 1
5 1
5 5
3 9

Output:

7 4
5 1
1 1
3 3
2 2
3 3