

Spiral

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[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
```