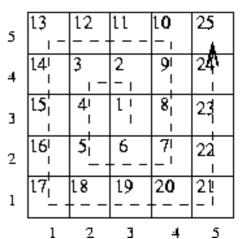
The game of Spiral Tap is played on a square grid. Pieces are placed on a grid and the moves are realized according to the position of the pieces on the grid. However, the coordinate system in the game of Spiral Tap are a bit different that those find in traditional board games, such as chess.

The cell numbering scheme follow a spiral, starting from the center of the grid in an anti-clockwise fashion. The figure on the right illustrates the cell numbering scheme.

The goal is, given the spiral tap coordinates of a cell, find its cartesian coordinates (line 1 is at the bottom, and column 1 is the leftmost).



Input

The input is a series of lines. Each line is composed of two numbers: SZ and P. SZ is the size of the border of the grid and is an odd number no larger than 100000. P is the spiral position of a cell in this grid. The line such that SZ = P = 0 marks the end of the input (and is not part of the data set).

Output

For each line in the data set of the input, your program must echo a line 'Line = X, column = Y.', where X and Y are the cartesian coordinates of the corresponding cell.

Sample Input

3 9

5 9

5 10

0 0

Sample Output

Line = 2, column = 2.

Line = 3, column = 1.

Line = 3, column = 3.

Line = 4, column = 4.

Line = 5, column = 4.