**Problem A: Bee Maja**

Maja is a bee. She lives in a bee hive with thousands of other bees. This bee hive consists of many hexagonal honey combs where the honey is stored in.   
But bee Maja has a problem. Willi told her where she can meet him, but because Willi is a male drone and Maja is a female worker they have different coordinate systems.

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| **Maja's Coordinate System** | **Willi's Coordinate System** |
| Maja who often flies directly to a special honey comb has laid an advanced two dimensional grid over the whole hive. | Willi who is more lazy and often walks around just numbered the cells clockwise starting from 1 in the middle of the hive. |
| Maja | Willi |

Help Maja to convert Willi's system to hers. Write a program which for a given honey comb number gives the coordinates in Maja's system.

**Input Specification**

The input file contains one or more integers which represent Willi's numbers. Each number stands on its own in a separate line, directly followed by a newline. The honey comb numbers are all less than 100 000.

**Output Specification**

You should output the corresponding Maja coordinates to Willi's numbers, each coordinate pair on a separate line.

**Sample Input**

1

2

3

4

5

**Sample Output**

0 0

0 1

-1 1

-1 0

0 -1