A   Treasure - Bronze

Jimmy is trying to get to the treasure. He starts at (0,0) and has a map, in the form of a number. Jimmy knows how to decode the number into directions because he has just learned about division and remainders. Jimmy must divide the number by 4 and act based on the remainder. 0 - go North, 1 - go East, 2 - go South, 3 - go West. Jimmy must then repeat with the quotient until he gets 0.

Print out the location of the treasure

SHORT NAME: `t`

INPUT FORMAT:
The first line of input contains the integer N, the map number. $(1 \leq N \leq 100,000)$

OUTPUT FORMAT:
Output a two integers separated by a comma and a space which represent the location of the treasure.

SAMPLE INPUT:

5

SAMPLE OUTPUT:

2, 0