Problem A
Odd Root Sum

Input: Standard Input
Output: Standard Output

Given the value of an n you will have to find the modulo 100000000 value of the following expression:

$\lfloor\sqrt{1}\rfloor+\lfloor\sqrt{3}\rfloor+\lfloor\sqrt{5}\rfloor+\ldots+\lfloor\sqrt{2i-1}\rfloor+\ldots+\lfloor\sqrt{m}\rfloor$, where m is the largest odd number not greater than n

Or in other words you will have to find the value of S where,

$$S=\left(\lfloor\sqrt{1}\rfloor+\lfloor\sqrt{3}\rfloor+\lfloor\sqrt{5}\rfloor+\ldots+\lfloor\sqrt{m}\rfloor\right) MOD\ 100000000.$$

Input

The input file contains at most 30000 lines of inputs. Each line contains a single 64-nit signed integer which denotes the value of n. Input is terminated by a line containing a single zero which should not b processed.

Output

For each line of input produce one line of output. This line contains the value of S.

Sample Input	Output for Sample Input
9 19 29 10000000 0	9 26 49 38426378

Problemsetter: Shahriar Manzoor
Special Thanks To: Derek Kisman