P0018. Azathoth numbers   P53202_en

In the center of the universe the origin of the chaos resides: a blind and crazy god called Azathoth. In his madness, Azathoth writes the numbers in basis 50, and each of the digits in basis 50 is written in binary basis. Moreover, he writes a dot in the beginning, in the end and between each digit.

For instance, $115 = 2 \cdot 50^1 + 15 \cdot 50^0$. As 2 in binary basis is |10|, and 15 in binary basis is |1111|, Azathoth would write "|.10.1111.|".

Your task is to write a program that prints each given number with the Azathoth system.

Observation

Your program must implement and use the procedure

   void *binary_print* (**int** *n*);

that prints any natural number |n| in binary (zero included).

Hint

Use recursion.

Input

The input is a sequence of natural numbers.

Output

Your program must print each natural number in decimal and also in Azathoth system one per line and following the format of the instances.

Sample input 1	Sample output 1
115	115 = .10.1111.
6	6 = .110.
31	31 = .11111.
49	49 = .110001.
50	50 = .1.0.
51	51 = .1.1.
2532	2532 = .1.0.100000.
0	0 = .0.
1	1 = .1.
1122334455	1122334455 = .11.11101.11100.100001.100111.101.

Sample input 2	Sample output 2
6250000	6250000 = .1.0.0.0.0.

Problem information

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