Have you ever heard of an IQ-address? For the given integer n, it is calculated as follows:

1. Let result = "".
2. If n = 1, prepend "1" to the beginning of result and return it as an answer.
3. Prepend n % 10.5 to the beginning of result.
4. Divide n by 2 with rounding up to the nearest integer.
5. Go to step 2.

Given an integer n, your task is to return IQ-address generated from it.

**Example**

For n = 21, the output should be  
iqAddress(n) = "12.03.06.00.50.0".

Here's why:

* 21% 10.5 = 0.0
* 11% 10.5 = 0.5
* 6 % 10.5 = 6.0
* 3 % 10.5 = 3.0
* 2 % 10.5 = 2.0

Thus, the answer is "1"+"2.0"+"3.0"+"6.0"+"0.5"+"0.0" = "12.03.06.00.50.0".

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] integer n**

*Constraints:*  
0 ≤ n ≤ 105.

* **[output] string**

The IQ-address generated from n.

<https://codefights.com/challenge/Y7C33HX5SWeb8vEKd>

static string iqAddress(int n)

{

string result = "";

while (true)

{

if (n == 1)

{

result = "1" + result;

break;

}

else

{

result = ((double)(n % 10.5)).ToString("0.0") +""+ result;

// Console.WriteLine(((double)(n % 10.5)).ToString("0.0"));

}

n = (int)Math.Ceiling((double)n / 2);

}

return result;

}