Given an integer n, find the largest positive integer that has the same number of 0s and1s in its binary representation.

**Example**

* For n = 5, the output should be  
  maxBits(n) = 6.

5 = 1012, so the answer is 1102 = 6.

* For n = 15, the output should be  
  maxBits(n) = 15.

15 = 11112, so the answer is 11112 = 15.

**Input/Output**

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

*Constraints:*  
0 ≤ n ≤ 1000

* **[output] integer**

An integer that has as many 0s and 1s asn

<https://codefights.com/challenge/pRhd3WGJME7CFSczX/main>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static int maxBits(int n)

{

string binIni = "";

int c = n;

int unosIni = 0, cerosIni = 0;

while (c > 0)

{

if (c % 2 == 1)

{

unosIni++;

}

else

{

cerosIni++;

}

binIni += (c % 2).ToString();

c /= 2;

}

int ultimo = n;

for (int i = n + 1; ; )

{

int unos = 0, ceros = 0;

string bin = "";

int copia = i;

while (copia > 0)

{

if (copia % 2 == 1)

{

unos++;

}

else

{

ceros++;

}

bin += (copia % 2).ToString();

copia /= 2;

}

if (unos == unosIni && ceros == cerosIni)

{

ultimo = i;

}

if (bin.Length > binIni.Length)

{

return ultimo;

}

else if (bin.Length == binIni.Length)

{

i++;

}

else

{

}

}

}

static void Main(string[] args)

{

Console.WriteLine(maxBits(37));

Console.ReadLine();

}

}

}