using System;

using System.Collections;

using System.Collections.Generic;

namespace ConsoleApp16

{

class Program

{

static string highestValuePalindrome(string s, int n, int k)

{

int cambiar\_para\_que\_sea\_palindromo = 0;

int i = 0, j = n - 1;

while (i < j)

{

if (s[i] != s[j])

{

cambiar\_para\_que\_sea\_palindromo++;

}

i++;

j--;

}

if (cambiar\_para\_que\_sea\_palindromo > k) return "-1";

i = 0;

j = n - 1;

char[] ch = s.ToCharArray();

//palindromizo con los maximos

HashSet<int> hash = new HashSet<int>();

while (i < j)

{

if (ch[i] > ch[j])

{

hash.Add(j);

ch[j] = ch[i];

}

else if (ch[j] > ch[i])

{

hash.Add(i);

ch[i] = ch[j];

}

i++;

j--;

}

//Console.WriteLine(new string(ch));

//convierto los que sobran a 9's

if(k - hash.Count > 0)

{

i = 0;

j = n - 1;

k -= hash.Count;

while (i < j)

{

if(ch[i] != '9' && ch[j] !='9')

{

if (hash.Contains(i) && hash.Contains(j))

{

if (k >= 0)

{

ch[i] = '9';

ch[j] = '9';

}

}

else if(hash.Contains(i))

{

if(k >=1)

{

ch[i] = '9';

k--;

ch[j] = '9';

}

}

else if(hash.Contains(j))

{

if(k >=1)

{

ch[j] = '9';

k--;

ch[i] = '9';

}

}

else

{

if(k >= 2)

{

ch[i] = '9';

ch[j] = '9';

//------------

if (i != j)

{

k -= 2;

}

else

{

k--;

}

}

}

}

else if(ch[i] != '9') //i!=9 j = 9

{

if(hash.Contains(i))

{

if(k >=0)

{

ch[i] = '9';

}

}

else

{

if(k >= 1)

{

ch[i] = '9';

k--;

}

}

}

else if(ch[j] != '9') //i=9 j != 9

{

if(hash.Contains(j))

{

if (k >= 0)

{

ch[j] = '9';

}

}

else

{

if (k >= 1)

{

ch[j] = '9';

k--;

}

}

}

i++;

j--;

}

}

if (n % 2 != 0)

{

if (ch[ (int)(Math.Ceiling( (double) (double)n / 2.0) - 1) ] != '9')

{

if (k >= 1)

{

ch[(int)(Math.Ceiling((double)(double)n / 2.0) - 1)] = '9';

}

}

}

return new string(ch);

}

static void Main(string[] args)

{

//string s = "128392759430124";

//int n = 15;

//int k = 8;

string s = "1";

int n = 1;

int k = 5;

Console.WriteLine(highestValuePalindrome(s, n, k));

Console.ReadLine();

}

}

}