```
def addl(a,b):
  carry = 0
  c = [0]*len(a)
  h = [0]*len(a)
  for i in range(len(a)-1,-1,-1):
     c[i] = (a[i]+carry+b[i])\%2
     carry = (a[i]+carry+b[i])/2
  if carry ==1:
    h[-1]=1
     c = addl(h,c)
  return c
a = input()
n = int(input())
b = len(a)
c = list(map(int,a))
h = c[0:n]
h1 = c[n:2*n]
h2 = addl(h,h1)
for i in range(2,b//n):
  h2 = addl(h2,c[i*n:(i+1)*n])
for i in range(0,n):
  print((h2[i]+1)%2, end="")
```

```
Python 3.4.0 Shell
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<u>F</u>ile <u>E</u>dit She<u>l</u>l <u>D</u>ebug <u>O</u>ptions <u>W</u>indows <u>H</u>elp
Python 3.4.0 (default, Apr 11 2014, 13:05:11)
[GCC 4.8.2] on linux
Type "copyright", "credits" or "license()" for more information.
>>>
101010011001
0010
>>>
                                                                                      Ln: 9 Col: 4
```