#兔子问题

'''

n = input('输入数字\n>>>')

def tuzi(n):

a = 1

b = 1

for i in range(1,n+1,2):

print '%d %d'%(a,b),

a += b

b += a

tuzi(n)

'''

#求101-200之间的质数

'''

from math import sqrt

def main():

for i in range(1,201):

flag = 1

k = int(sqrt(i))

for j in range(2,k+1):

if i%j == 0:

flag = 0

break

if flag == 1:

print '%3d'%(i),

if \_\_name\_\_ == "\_\_main\_\_":

main()

'''

#水仙花数

'''

def main():

for i in range(100,1000):

a = i%10

b = i/100

c = (int(i/10))%10

if i == a\*\*3+b\*\*3+c\*\*3:

print "%5d"%(i),

if \_\_name\_\_ == "\_\_main\_\_":

main()

'''

'''

print 3\*\*2

print 3\*\*4

'''

#将一个正整数分解质因数。例如：输入90,打印出90=2\*3\*3\*5

'''

def main():

n = int(raw\_input('Enter a number:'))

print n,'=',

while(n!=1):

for i in range(2,n+1):

if (n%i)==0:

n/=i

if(n == 1):

print '%d'%(i)

else:

print '%d \*'%(i),

break

if \_\_name\_\_ == "\_\_main\_\_":

main()

'''

#输入一行字符，分别统计出其中英文字母、空格、数字和其它字符的个数。

'''

import string

def main():

s = raw\_input('input a string:')

letter = 0

space = 0

digit = 0

other = 0

for c in s:

if c.isalpha():

letter+=1

elif c.isspace():

space+=1

elif c.isdigit():

digit+=1

else:

other+=1

print 'There are %d letters,%d spaces,%d digits and %d other characters in your string.'%(letter,space,digit,other)

if \_\_name\_\_ == '\_\_main\_\_':

main()

'''

#题目：求s=a+aa+aaa+aaaa+aa...a的值，其中a是一个数字。例如2+22+222+2222+22222(此时共有5个数相加)，几个数相加有键盘控制。

'''

def main():

basis = int(raw\_input("Input the basis number:"))

n = int(raw\_input("Input the longest length of number:"))

b = basis

sum = 0

for i in range(0,n):

if i==n-1:

print "%d "%(basis),

else:

print "%d +"%(basis),

sum+=basis

basis = basis\*10+b

print '= %d'%(sum),

if \_\_name\_\_ == '\_\_main\_\_':

main()

'''

'''

【程序38】

题目：求一个3\*3矩阵对角线元素之和

'''

'''

l = []

for i in range(3):

for j in range(3):

l.append(int(raw\_input('Input a number:')))

s = 0

for i in range(3):

s += l[3\*i+i]

print s

'''

'''

【程序39】

题目：有一个已经排好序的数组。现输入一个数，要求按原来的规律将它插入数组中。

'''

'''

l = [0,10,20,30,40,50]

print 'The sorted list is:',l

cnt = len(l)

n = int(raw\_input('Input a number:'))

l.append(n)

for i in range(cnt):

if n<l[i]:

for j in range(cnt,i,-1):

l[j] = l[j-1]

l[i] = n

break

print 'The new sorted list is:',l

'''

'''

【程序54】

题目：取一个整数a从右端开始的4～7位。

'''

'''

a = 100

print 100&0x00F0

'''

'''

【程序56】

题目：画圆【Tkinter模块】

'''

'''

if \_\_name\_\_ == '\_\_main\_\_':

from Tkinter import \*

canvas = Canvas(width=800, height=600, bg='red')

canvas.pack(expand=YES, fill=BOTH)

k = 1

j = 1

for i in range(0,26):

canvas.create\_oval(310 - k,250 - k,310 + k,250 + k, width=1)

k += j

j += 0.3

mainloop()

'''

'''

【程序57】

题目：画直线。

1.程序分析：

2.程序源代码：

'''

'''

if \_\_name\_\_ == '\_\_main\_\_':

from Tkinter import \*

canvas = Canvas(width=300, height=300, bg='green')

canvas.pack(expand=YES, fill=BOTH)

x0 = 263

y0 = 263

y1 = 275

x1 = 275

for i in range(19):

canvas.create\_line(x0,y0,x0,y1, width=1, fill='red')

x0 = x0 - 5

y0 = y0 - 5

x1 = x1 + 5

y1 = y1 + 5

x0 = 263

y1 = 275

y0 = 263

for i in range(21):

canvas.create\_line(x0,y0,x0,y1,fill = 'red')

x0 += 5

y0 += 5

y1 += 5

mainloop()

'''