a = 5

b = 8

temp = a

a = b

b = temp

print(a)

print(b)

year = 2002

if(year%4==0):

print(year,"leap year")

else:

print(year,"not a leap year")

y = input()

print("a=",y)

n = int(input())

fact = 1

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

fact = fact\*i

print ("the factorial is", fact)

n=int(input("enter"))

sum=0

i=2

while (i<=n) and (n%2==0)

sum = sum+i

i=i+2

print("sum", sum)

def add(a,b):

c = a+b

return c

#print(c)

add(4.1,5)

print(add(4,5))

import math

math.sqrt(25)

year = int(input())

def leap(year):

if(year%4==0):

print ("leap year")

else:

print("not a leap year")

leap(year)

def fact():

factorial = 1

for i in range(1,8):

factorial = factorial \* i

print(factorial)

fact()

def fact(n):

if(n==1):

return 1

else:

return n\*fact(n-1)

fact(5)

s= 'python'

s =s.replace('python','python is simple')

print(s)

#string inside a string or part of the string is caled substring

#substring

'ht' in s

'is' in s

len(s)

(s[4])#indexing

s[3:6]

s[2: ]

s[:8]

s= 'python is simple'

s[:6]+s[9:]

s[:6]+s[-7:]

s[-6:]

s[-6:-1]#uupperlimit is exclusive

m = 'pillayar'

m[::-1]

s[4::2]#slicing

s[::2] #every alternate character is printed

s[::3]# prints every 3rd character is the string

n = input()

def sac(n):

if(n[0:2]=="is"):

print(n)

else:

print('is'+n)

sac(n)

# i is oop variable

for i in range(1,11):

print (i)

#addition of number 1-10 in for loop

sum = 0

for i in range(1,11):

sum = sum + i

print(sum)

#reverse print of the numbers obtained

n = int(input())

while(n>0):

a = n%10

#print a

n = n//10

print(a)

#print n to know the process

print(n)

**#0=6=6,60+1=61, 610+9=619,6190+8=6198,61980+7=61987**

n = int(input())

res = n**# for palindrome(reverse number is same as the given number)**

rev = 0

while(n>0):

a = n%10

rev = (rev\*10) + a

n = n//10

print(rev)

#palindrome loop

if(res == rev):

print(rev, "is a palindrome")

else:

print(rev, " is not a palindrome")

**#palindrome in function**

n = int(input())

def palindrome(n):

res = n# for palindrome(reverse number is same as the given number)

rev = 0

while(n>0):

a = n%10

rev = (rev\*10) + a

n = n//10

if(res == rev):

print(rev)

palindrome(n)

**TYPE 2 GENERIC METHOD OF USING PALINDROME**

a = int(input())

b = int(input()

for i in range(a, b+1):

palindrome(i)

**#random number game**

import random

num = random.randint(1,1000)

print(num)

max\_attempts = 15

count =0

for i in range(0,max\_attempts+1):

n = int (input())

if(n < num):

print("guess is low")

count = count +1

elif(n > num):

print("guess is high")

count = count +1

else:

print("guess is correct")

break

print(count)

s = "hello world"

type(s)

#length of the string

len(s)

s.islower()

s.isupper()

s1 = s.upper()

s.lower()

print(s1)

s[6].upper()

for i in s:

print (i)

for i in range(len(s)):# prints the length of the string

print(i)

for i in range(len(s)):#prints the variables in the string

print(s[i])

s1 = "hello"

s2 = "world"

s = s1 + " " + s2

print(s)

QUESTION: get a string from the user as input form that string as first 2 and last 2 characters and print

the string

s = input()

if(len(s)>=2):

print(s[:2]+s[-2:])# a = len(s) \n a-1 \n [a-2:a]

elif(len(s)<=1):

print("empty")

else:

print("give a string")

s = 'hello'

print(s1\*2)

"s" in "ssn"

s = 'chennai super kings'

for i in s:

print(i)

s.replace('super', "supreme")# replace either a substring or the entire string

s.count("n")# counts the number of times the values are accoring in the string

s = 'restart'

#s1 = s.count("r")

if(s.count('r')> 1)

#s.replace('n','$')

print(s.replace('r','$',2))

else:

print("no repeats")

s = 'restart'

if(s.count('r'))

x = s.replace('r','$',1)

print(x)

@@@@@ 19/7

\*LIST\*

fruits = ['apple','orange','banana','cherry']

fruits[0]

type(fruits) #list

fruits.append('chik')

fruits.insert(1,'strawberry')

print(fruits) # prints the entire list

print(fruits[0:2]) #use slicing for particular

fruits.sort()

fruits.reverse() #simply reverses

fruits = ['apple','orange','banana','cherry']

fruits.sort(reverse= True) #descending order

for i in range(0,len(fruits)):

print(fruits[i])

a = [1,2,3]

b =[4,5,6]

a+b

a.append(b) #nested list will happen

a\*2

ADD THE VALUES INSIDE THE LIST : METHOD 1

a=[1,2,3]

b=[4,5,6]

c = []

for i in range(0,len(a)):

c.append(a[i]+b[i])

print (c)

METHOD 2:

a=[1,2,3]

b=[4,5,6]

l =len(a)

c = [0]\*1 #c =[0,0,0]

for i in range(0,len(a)):

c[i]= (a[i]+b[i])

print(C)

num =[10,45,67,34,28]

sum(num)

max(num)

min(num)

EVEN:

num = [10,45,67,34,28]

c = []

for i in range(0,len(num)):

if(num[i]%2 == 0):

c.append(num[i])

print(c)

num = [10,45,67,34,28]

num.pop()

num.remove(num[0])

caterpillar jump sequene

leaves

N = int(input())

nc = int(input())

jump = []

for i in range(0,nc):

jump.append(int(input()))

if(nc)

SET:

l1 = [1,2,5,2,7]

l1 = set(l1)#typecasting

#chose shift and enter for "l1" alone to get the result

l2 = [1,3,5,5]

l2 = set(l2)

@@INTERSECTION IN SET USING THE '|' SYMBOL@@

l1 | l2

l1 & l2 @@common elements in bothe the set@@

@@typecasting from datatype set to list@@

res = l1 & l2

res = list(res)

a = input().split() #requires space betwween inputes to take it as a list

print(a)

s1 = "this is good"

s1 = s1.split()

s1 = ["this","is","good"]

"-".join(s1)

" ".join(s1)

list comhrehension:

[i for i in input().split()]

l1 = [10,23,45,50,62,70]

even = []

for i in l1:

if (i%2 == 0):

even.append(i)

even = [i for i in l1 if i%2 == 0]

camera = {'sony':500, 'Canon': 1000}

camera['sony']

camera['nikon']= 750

'sony' in camera

d1 = {1:10,2:20}

d2 = {3:30, 4:40}

d3 = {}

for d in(d1,d2):

d3.update(d)

for k,v in d3.items(): ## to print both the items and key value pair

print (k,'-.',v)

n=int(input("Input a number "))

d = dict()

for x in range(1,n+1):

d[x]=x\*x

print(d)

d ={}

for i in range(1,11):

d.update({i:i\*i})

print(d)

colors = ['blue','red','blue','yelow','blue']

d1 = {}

for i in colors:

count = colors.count(i)

d1.update({i:count})

print (d1)

from collections import Counter

Counter(colors)

s = {'d1' : 55,

'd2': 45,

'd3' : 25}

sum(s.values()) #we have to specify values to print the values.

result = {}

for k,v in s.items():

if v not in result.values():

result[k]=v

print(result)

student = {140008:{'name': 'janani','dept':'SACE','marks':[90,99,98]}}

@@@homework:@@@

with respect to string, print all the subsrting of a string

listen- using for loop

a = input("string :")

for i in range (0,len(a)):

for j in range(0,len(a)):

print(a[i:j+1])