*#program -1*x=8  
y=9  
z=x+y  
print(z)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#2-program for using range*a = range(1, 10)  
for i in a:  
 print(i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#3\_program- Range*b=range(3,30,2)  
for j in b:  
 print(j)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~”)  
  
*#program for list*thislist=["Apple","Mango","orange"]  
for n in thislist:  
 print(n)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program for using range in list*thislist = ["one" , "Two" , "Three" , "four"]  
for i in range(len(thislist)):  
 print(thislist[i])  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program for using while loop*thislist = ["ganga","Narmada","krishna"]  
i = 0  
while i < len(thislist):  
 print(thislist[i])  
 i = i + 1  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program for using loop comprehension*fruits = ["Banana","Mango","Apple","Avakoda"]  
newlist=[]  
for x in fruits:  
 if "a" in x:  
 newlist.append(x)  
 print(newlist)  
 print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to sum all items in the list*x = [10,11,12,13]  
print("The item to be added", x)  
result = sum(x)  
print("The sum of all items are" , result)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program to multiply all items in a list  
#x = int[3, 4, 5, 6]*y=1  
for i in x:  
 y = y\*i  
print(y)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to get the largest number in a list*items =[10,56,12,45,20]  
print("Entered elements are",items)  
print("The biggest element is")  
print(max(items))  
*#program to get the smallest number in a list*items =[10,56,12,45,20]  
print("Entered elements are",items)  
print("The smallest element is ", min(items))  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#7.program to find the frequency of a character in a string*str=input("Enter the string: ")  
d = dict()  
for i in str:  
 if i in d:  
 d[i]=d[i]+1  
 else:  
 d[i]=1  
print(d)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#8. program to count the number of strings where the string length is 2or more and first and last char is same.*y= ['abc','xyz','aba','1221']  
print("The given strings are : ", y)  
for i in y:  
 length=len(i)  
 print("The length of the strings are: ", length)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program for slicing in Strings*b= "Hello, World!"  
print("The given string is: " , b)  
print("Slicing from 2nd position: " ,b[2:])  
print("Slicing from start position: " ,b[:5])  
print("Slicing from backward position: " ,b[-5:-2])  
print("Slicing from backward position: " ,b[:-2])  
print("Slicing from backward position: " ,b[-3:-1])  
print("The slicing result is: ",b[4:2:-1])  
c="Welcome to scaler"  
print(" slicing from backward ", c[-16:-4])  
print(" slicing from backward ", c[-16:-4:2])  
print(" slicing from backward ", c[3:-7])  
print(" slicing from backward ", c[-11:-1:2])  
print(" slicing from backward ", c[-13:-1:2])  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program for slicing:*b= [40, 50, 20, 30, 90]  
print("The given list: ", b)  
c=b[1:3]  
print(c)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#next program*h=list(range(30,100,10))  
print("given Range ", h)  
j=list(range(10))  
print("Arrived range = ", j)  
print("After slicing-1", j[2:6:2])  
a=list(range(10))  
print("Arrived range = ", a)  
print("After slicing-2 ", a[0:8:3])  
a=list(range(10))  
print("After slicing-3 ", a[:-2])  
a=list(range(10))  
print("The Element are ", a)  
print("After slicing-4 ", a[:-2:2])  
a=list(range(10))  
print("The Element are ", a)  
print("After slicing-5 ", a[::4])  
a=list(range(10))  
print("The Element are ", a)  
print("After slicing-6 ", a[2:-2])  
a="Stuttgart"  
print("Given String: ",a)  
print("After slicing -7 " , a[2:-2])  
a="Stuttgart"  
print("Given String: ",a)  
print("After slicing-8 " , a[-2:])  
a=list(range(10))  
print("The Element are ", a)  
print("After slicing-9 ", a[2:3])  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program for set - -(19 july)*f={"red","blue","green","yellow"}  
print(f)  
f={"red","blue","green","yellow"}  
for c in f:  
 print(c)  
f={"red","blue","green","yellow"}  
print("red" in f)  
print("pink" in f)  
*#program using add method*j= {"apple","banana","cherry"}  
print("Given elements are: " ,j )  
j.add("orange")  
print("Result is ", j)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program to add the items from another set*set1 = {1,2,3,4,5}  
set2 = {6,7,8,9,9}  
print("set1 Elements: ",set1)  
print("set2 Elements: ",set2)  
set1.update(set2)  
print("combined list: " ,set1)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to add list in set using update method*set1 = {"Red","blue","Green","yellow"}  
list1 = ["apple","orange","mango","banana"]  
print("Set items ",set1)  
print("list items ",list1)  
set1.update(list1)  
print("Result is " ,set1)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to remove items*set1 = {"Red","blue","Green","yellow"}  
print("Given list of items: ",set1)  
set1.remove("Red")  
print("After removing,remaining items are: ",set1)  
print("Given list of items: ",set1)  
set1.discard("Red")  
print("After removing,remaining items are: ",set1)  
set3= {"apple","orange","mango","banana"}  
print("given elements are: ",set3)  
*#set3.remove("cherry")*print("Elements after using remove method", set3)  
set3.discard("cherry")  
print("Elements after using discard method", set3)  
print("```````````````````````````````````````````")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using pop method*set1 = {"Red","blue","Green","yellow"}  
x = set1.pop()  
print("pop element is: ",x)  
print("Elements after pop method",set1)  
print("```````````````````````````````````````````")  
  
*#program using del and clear method*r={2,4,6,8,10}  
print("Given Elements are: ",r)  
r.clear()  
print("Result after clear process: ",r)  
print("```````````````````````````````````````````")  
r={1,3,5,7,9}  
print("Given Elements are: ",r)  
del r  
print("Result after del process")  
print("```````````````````````````````````````````")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
*#program for using for loop*t= ("chennai","mumbai","kolkatta","Goa")  
print("Given elements are: ",t)  
print("Result elements are")  
for g in t:  
 print(g)  
print("```````````````````````````````````````````")  
  
*#program for loop*t={4,5,6,7,8}  
print("Given Elements are: ",t)  
for i in t:  
 print("Result: ",i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using union and intersection method*t={2,4,6,8,10}  
r={1,3,5,7,8,6,9}  
print("elements in t: ",t)  
print("elements in r: ",r)  
f=t.union(r)  
print("Elements after union method : ",f)  
s = t.intersection(r)  
print("Elements after intersection method:",s)  
t.update(r)  
print("Elements after update method : ",t)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program for using dictionary*dict1={"Name":"Kumar","age":"24","education":"B.Sc"}  
print(dict1)  
print(dict1["Name"])  
print(dict1["age"])  
dict1["place"]="kadalur"  
print(dict1)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -Assignment*str1="""  
 Twinkle, twinkle, little star,  
 How I wonder what you are!   
 Up above the world so high,   
 Like a diamond in the sky.   
 Twinkle, twinkle, little star,   
 How I wonder what you are """  
print("The result string", str1)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to add new item in dictionary*print("Dictionary")  
car={ "brand":"ford",  
 "model":"Mustang",  
 "year":1964}  
x = car.values()  
print("Elements in the Dictionary: ",x)  
car["color"]="red"  
print("Updated elements: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to reflect changes in the dictionary*print("Dictionary")  
car={ "brand":"ford",  
 "model":"Mustang",  
 "year":1964}  
x = car.items()  
print("Elements in the Dictionary: ",x)  
car["color"]="red"  
car["year"] = 2020  
print("Updated elements: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program to check the value*thisdict={ "brand":"ford",  
 "model":"Mustang",  
 "year":1964}  
if "model" in thisdict:  
 print("yes,'model' is one of the keys in thisdict dictionary")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to check the value*thisdict={ "brand":"ford",  
 "model":"Mustang",  
 "year":1964}  
if "brand" in thisdict:  
 print("yes,'brand' is one of the keys in thisdict dictionary")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*# program*print("Dictionary")  
car={ "brand":"ford",  
 "model":"Mustang",  
 "year":1964}  
x = car.items()  
print("Elements in the Dictionary: ",x)  
car["color"]="red"  
car.update({"year":2022})  
print("Updated elements: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program to pop items*student={"Name":"Ram",  
 "std":"fifth",  
 "Admission-No":2013}  
x=student.items()  
print("Given elements are: ",x)  
print("Pop process start")  
student.pop("Admission-No")  
print("Result:",x)  
student["Admission-No"]=2013  
print(student["Admission-No"])  
print("Before popping process: ",student)  
student.popitem()  
print("After popping process: ",student)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using del keyword*student={"Name":"Ram",  
 "std":"fifth",  
 "Admission-No":2013}  
x=student.items()  
print("Given elements are: ",x)  
print("Del process start")  
del student["std"]  
print("Result: ",student)  
print("clear process start")  
student.clear()  
print("After clear process: ", student)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using for loop*student={"Name":"Ram",  
 "std":"fifth",  
 "Admission-No":2013}  
print("Elements in the list: ")  
for x in student:  
 print(student[x])  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using values in dictionary*student={"Name":"Ram",  
 "std":"fifth",  
 "Admission-No":2013}  
print("Elements in the list: ")  
for x in student.values() :  
 print(x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using keys in dictionary*student={"Name":"Ram",  
 "std":"fifth",  
 "Admission-No":2013}  
print("Elements in the list: ")  
for x in student.keys() :  
 print(x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using both keys and values in dictionary*student={"Name-":"Ram",  
 "std-":"fifth",  
 "Admission-No-":2013}  
print("Elements in the list: ")  
for x,y in student.items() :  
 print(x,y)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using copy method*student={"Name-":"Ram",  
 "std-":"fifth",  
 "Admission-No-":2013}  
print("Elements in the list: ")  
student1=student.copy()  
print(student1)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using dict method*student={"Name-":"Ram",  
 "std-":"fifth",  
 "Admission-No-":2013}  
print("Elements in the list: ")  
student1=dict(student)  
print(student)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using nested dictionary*myfamily = {  
 "child1":{  
 "name":"uma",  
 "age":8  
 },  
 "child2":{  
 "name":"latha",  
 "age": 4  
 }  
 }  
print(myfamily)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using if statement*a = 33  
b = 200  
  
if b > a:  
 print("b is greater than a" ,b)  
  
 *#program fro while loop* i - 1  
 while i < 1:  
 print(i)  
 print("Executing loop")  
 if i == 3:  
 break  
 i += 1  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")

*program-1 while loop*i = 1  
while i < 6:  
 print(i)  
 if i == 3:  
 break  
 i+= 1  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*# program-2 while loop*j = 1  
while j < 8:  
 print(j)  
 print("Welcome to python world")  
 if j == 7 :  
 break  
 j+=1  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -3 while loop*k = 0  
while k < 5:  
 k += 1  
 if k == 3:  
 continue  
 print(k)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -4*c = 1  
while c < 5:  
 print(c)  
 c += 1  
else:  
 print("c is no longer than 6")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -5 for loop*fruits = ["grapes","banana","Mango","Apple"]  
for x in fruits:  
 print("Given Element: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program-6 for loop(strings)*for x in "banana":  
 print("Result: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program-7*city = ["chennai","Banglore","mumbai","Kolkatta","goa"]  
for y in city:  
 print("cities list: ",y)  
 if y == "Kolkatta":  
 break  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program-8*city = ["chennai","Banglore","mumbai","Kolkatta","goa"]  
for y in city:  
 if y == "Kolkatta":  
 break  
 print("Result after break statement: ",y)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program\_9 for & continue statement*city = ["chennai","Banglore","mumbai","Kolkatta","goa"]  
for c in city:  
 if c == "mumbai":  
 continue  
 print ("list after if checking: ",c)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program-10 range*for x in range(6):  
 print(x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program\_11*for x in range(2,6):  
 print(x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 12*for x in range(1,6,1):  
 print(x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program - 13*for x in range(6):  
 print(x)  
else:  
 print("finally finished")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program-14*for x in range(6):  
 if x == 3: break  
 print(x)  
else:  
 print("Finally finished")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program-15*x = [1,3,5,7,9]  
y = [2,4,6,8]  
for h in x:  
 for k in y:  
 print(h,k)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 15- function*def my\_function():  
 print("Hello from a function")  
  
my\_function()  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 16 - function*def family(name):  
 print(name+ "jones")  
  
family("amenda ")  
family("emili ")  
family("margrette ")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program- 17*def func1(sname,hname):  
 print(sname+" "+hname)  
  
func1("Geetha","Latha")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -18*def joy(\*name):  
 print("The youngest child is "+name[2])  
  
joy("Latha","Geetha","uma","Rama","Ruba")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -19*def my\_family(child1,child2,child3):  
 print("The youngest child is: "+child2)  
  
my\_family("Ruban","Altaf","Ram")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program - 20*def my\_function(\*\*kid ):  
 print("His last name is "+kid["lname"])  
  
my\_function(fname="Guru",lname="muthu")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program - 21 -Assignment*def fact(x):  
 print("The factor of ", x ,"are: ")  
 for i in range(1,x+1):  
 if x % i == 0:  
 print(i)  
  
j=420  
fact(j)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -22 -Assignment to print 10 even numbers*print("Natural numbers are ")  
for i in range(0,11):  
 print(i)  
  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -23 Assignment*for i in range(1,24):  
 if i % 2 == 0:  
 print("Even numbers are ",i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program-24 Assignment*for i in range(1,24):  
 if i % 2 != 0:  
 print("Odd numbers are ",i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -25 Assignment*for i in range(1,11):  
 print("Whole numbers are ",i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -26 Assignment -loop statement to print the following series:  
#10, 20, 30 … … 300*print("Multipels of 10 numbers ",x)  
for i in range(10,301):  
 if i % 10 == 0:  
 print (i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -27 Assignment - print first 10 integers and their squares*for i in range(1,11):  
 print (i, " ",i \* i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 28 Multipels of 7*for i in reversed(range (7,106)):  
 if i % 7 == 0:  
 print ("multipels of 7",i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#rprogram-29 to display all even numbers that falls between two numbers*a = int(input("Enter the first number: "))  
b = int(input("Enter the second number: "))  
for i in range(a+1,b):  
 if i % 2 ==0:  
 print ("List of even numbers are: ",i)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -30 to find the sum of the digits of a number accepted from the user.*num=int(input("enter a number:"))  
sum=0  
for i in str(num):  
 sum=sum+int(i)  
print(sum)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -31 using function*def sum():  
 a=int(input("Enter the first number"))  
 b=int(input("Enter the second number"))  
 c = a + b  
 print("Result: ",c)  
  
sum()  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -32 using function*def mult(a,b):  
 c = a \* b  
 print("Result of multiplication is: ",c)  
  
mult(6,9)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program - 33 using arbitary arguments*def play(\*name):  
 print("The youngest child is ",name[3])  
  
play("guru","Ram","siva","vishnu")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program -34 using function default parameter value*def country(name="Norway"):  
 print("My country name is ",name)  
  
country("USA")  
country("Europe")  
country("Brazil")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program-35 passing list as an argument*def myfamily(member):  
 for x in member:  
 print ("Members list are ",x)  
  
list1=["Anuj","Uma","Raja","Rama","Akash"]  
myfamily(list1)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 36 function using return statement*def myfunc(x):  
 return 3 \* x  
print("The answer is")  
print(myfunc(2))  
print(myfunc(5))  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program -37 function to find maximum of 3 numbers*def max():  
 a=int(input("Enter the 1 number "))  
 b=int(input("Enter the 2 number "))  
 c=int(input("Enter the 3 number "))  
 if a > b and a > c:  
 print("Biggest number is ",a)  
 elif b > c:  
 print("Bigest number is ",b)  
 else:  
 print("Biggest number is ",c)  
  
max()  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 38 function to sum all the numbers in a list*def display(list1):  
 sum = 0  
 for i in list1:  
 sum = sum + i  
 print(sum)  
  
list2 = [8,2,3,0,7]  
print("Result of the addition is ")  
display(list2)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program - 39 function to multiply all the numbers in a list*def display(list1):  
 sum = 1  
 for i in list1:  
 sum = sum \* i  
 print(sum)  
  
list2 = [8, 2, 3, -1, 7]  
print("Result of the multiplication process is ")  
display(list2)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")

*#program using elif statement*a=30  
b=30  
  
if b>a :  
 print("Bi greater",b)  
elif b == a:  
 print("a and b are equal")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
*#program using else statement*a = 90  
b = 34  
  
if b > a :  
 print("b is greater")  
elif b == a:  
 print("a and b are equal")  
else:  
 print("a is greater")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
*#program using oneline ifelse statement*a = 2  
b = 330, print("A") if a > b else print("B")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using and operator*a = 200  
b = 33  
c = 500  
if a > b and c > a :  
 print("Both conditions are true")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using or operator*a = 200  
b = 33  
c = 500  
if a > b or c > a:  
 print ("one of the condition satisfied")  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program using nested if statement*x = 41  
if x > 10:  
 print("number greater than 10: ",x)  
if x > 20:  
 print("number greater than 20: ",x)  
else:  
 print ("but not above than 20: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#program*x = 19  
if x > 10:  
 print("number greater than 10: ",x)  
if x > 20:  
 print("number greater than 20: ",x)  
else:  
 print ("but not above than 20: ",x)  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")  
  
*#Program for pass statement*"""a - 10  
b = 13  
if b > a:  
 pass  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")"""  
  
*#program for while loop*i = 1  
print("While condition")  
while i < 6:  
 print(i)  
 i += 1  
print("~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~")

Output:

17

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1

2

3

4

5

6

7

8

9

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

3

5

7

9

11

13

15

17

19

21

23

25

27

29

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Apple

Mango

orange

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

one

Two

Three

four

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

ganga

Narmada

krishna

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

['Banana']

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

['Banana', 'Mango']

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

['Banana', 'Mango']

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

['Banana', 'Mango', 'Avakoda']

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The item to be added [10, 11, 12, 13]

The sum of all items are 46

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

17160

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Entered elements are [10, 56, 12, 45, 20]

The biggest element is

56

Entered elements are [10, 56, 12, 45, 20]

The smallest element is 10

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Enter the string: god

{'g': 1, 'o': 1, 'd': 1}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The given strings are : ['abc', 'xyz', 'aba', '1221']

The length of the strings are: 3

The length of the strings are: 3

The length of the strings are: 3

The length of the strings are: 4

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The given string is: Hello, World!

Slicing from 2nd position: llo, World!

Slicing from start position: Hello

Slicing from backward position: orl

Slicing from backward position: Hello, Worl

Slicing from backward position: ld

The slicing result is: ol

slicing from backward elcome to sc

slicing from backward ecm os

slicing from backward come to

slicing from backward et cl

slicing from backward oet cl

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The given list: [40, 50, 20, 30, 90]

[50, 20]

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

given Range [30, 40, 50, 60, 70, 80, 90]

Arrived range = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

After slicing-1 [2, 4]

Arrived range = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

After slicing-2 [0, 3, 6]

After slicing-3 [0, 1, 2, 3, 4, 5, 6, 7]

The Element are [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

After slicing-4 [0, 2, 4, 6]

The Element are [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

After slicing-5 [0, 4, 8]

The Element are [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

After slicing-6 [2, 3, 4, 5, 6, 7]

Given String: Stuttgart

After slicing -7 uttga

Given String: Stuttgart

After slicing-8 rt

The Element are [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

After slicing-9 [2]

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

{'yellow', 'green', 'blue', 'red'}

yellow

green

blue

red

True

False

Given elements are: {'banana', 'cherry', 'apple'}

Result is {'banana', 'cherry', 'orange', 'apple'}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

set1 Elements: {1, 2, 3, 4, 5}

set2 Elements: {8, 9, 6, 7}

combined list: {1, 2, 3, 4, 5, 6, 7, 8, 9}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Set items {'yellow', 'Red', 'Green', 'blue'}

list items ['apple', 'orange', 'mango', 'banana']

Result is {'mango', 'yellow', 'Red', 'Green', 'blue', 'banana', 'orange', 'apple'}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Given list of items: {'yellow', 'Red', 'Green', 'blue'}

After removing,remaining items are: {'yellow', 'Green', 'blue'}

Given list of items: {'yellow', 'Green', 'blue'}

After removing,remaining items are: {'yellow', 'Green', 'blue'}

given elements are: {'banana', 'apple', 'orange', 'mango'}

Elements after using remove method {'banana', 'apple', 'orange', 'mango'}

Elements after using discard method {'banana', 'apple', 'orange', 'mango'}

```````````````````````````````````````````

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

pop element is: yellow

Elements after pop method {'Red', 'Green', 'blue'}

```````````````````````````````````````````

Given Elements are: {2, 4, 6, 8, 10}

Result after clear process: set()

```````````````````````````````````````````

Given Elements are: {1, 3, 5, 7, 9}

Result after del process

```````````````````````````````````````````

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Given elements are: ('chennai', 'mumbai', 'kolkatta', 'Goa')

Result elements are

chennai

mumbai

kolkatta

Goa

```````````````````````````````````````````

Given Elements are: {4, 5, 6, 7, 8}

Result: 4

Result: 5

Result: 6

Result: 7

Result: 8

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

elements in t: {2, 4, 6, 8, 10}

elements in r: {1, 3, 5, 6, 7, 8, 9}

Elements after union method : {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

Elements after intersection method: {8, 6}

Elements after update method : {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

{'Name': 'Kumar', 'age': '24', 'education': 'B.Sc'}

Kumar

24

{'Name': 'Kumar', 'age': '24', 'education': 'B.Sc', 'place': 'kadalur'}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The result string

Twinkle, twinkle, little star,

How I wonder what you are!

Up above the world so high,

Like a diamond in the sky.

Twinkle, twinkle, little star,

How I wonder what you are

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Dictionary

Elements in the Dictionary: dict\_values(['ford', 'Mustang', 1964])

Updated elements: dict\_values(['ford', 'Mustang', 1964, 'red'])

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Dictionary

Elements in the Dictionary: dict\_items([('brand', 'ford'), ('model', 'Mustang'), ('year', 1964)])

Updated elements: dict\_items([('brand', 'ford'), ('model', 'Mustang'), ('year', 2020), ('color', 'red')])

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

yes,'model' is one of the keys in thisdict dictionary

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

yes,'brand' is one of the keys in thisdict dictionary

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Dictionary

Elements in the Dictionary: dict\_items([('brand', 'ford'), ('model', 'Mustang'), ('year', 1964)])

Updated elements: dict\_items([('brand', 'ford'), ('model', 'Mustang'), ('year', 2022), ('color', 'red')])

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Given elements are: dict\_items([('Name', 'Ram'), ('std', 'fifth'), ('Admission-No', 2013)])

Pop process start

Result: dict\_items([('Name', 'Ram'), ('std', 'fifth')])

2013

Before popping process: {'Name': 'Ram', 'std': 'fifth', 'Admission-No': 2013}

After popping process: {'Name': 'Ram', 'std': 'fifth'}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Given elements are: dict\_items([('Name', 'Ram'), ('std', 'fifth'), ('Admission-No', 2013)])

Del process start

Result: {'Name': 'Ram', 'Admission-No': 2013}

clear process start

After clear process: {}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Elements in the list:

Ram

fifth

2013

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Elements in the list:

Ram

fifth

2013

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Elements in the list:

Name

std

Admission-No

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Elements in the list:

Name- Ram

std- fifth

Admission-No- 2013

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Elements in the list:

{'Name-': 'Ram', 'std-': 'fifth', 'Admission-No-': 2013}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Elements in the list:

{'Name-': 'Ram', 'std-': 'fifth', 'Admission-No-': 2013}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

{'child1': {'name': 'uma', 'age': 8}, 'child2': {'name': 'latha', 'age': 4}}

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

b is greater than a 200

1

2

3

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1

Welcome to python world

2

Welcome to python world

3

Welcome to python world

4

Welcome to python world

5

Welcome to python world

6

Welcome to python world

7

Welcome to python world

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1

2

4

5

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1

2

3

4

c is no longer than 6

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Given Element: grapes

Given Element: banana

Given Element: Mango

Given Element: Apple

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Result: b

Result: a

Result: n

Result: a

Result: n

Result: a

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

cities list: chennai

cities list: Banglore

cities list: mumbai

cities list: Kolkatta

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Result after break statement: chennai

Result after break statement: Banglore

Result after break statement: mumbai

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

list after if checking: chennai

list after if checking: Banglore

list after if checking: Kolkatta

list after if checking: goa

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

0

1

2

3

4

5

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

2

3

4

5

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1

2

3

4

5

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

0

1

2

3

4

5

finally finished

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

0

1

2

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1 2

1 4

1 6

1 8

3 2

3 4

3 6

3 8

5 2

5 4

5 6

5 8

7 2

7 4

7 6

7 8

9 2

9 4

9 6

9 8

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Hello from a function

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

amenda jones

emili jones

margrette jones

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Geetha Latha

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The youngest child is uma

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The youngest child is: Altaf

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

His last name is muthu

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The factor of 420 are:

1

2

3

4

5

6

7

10

12

14

15

20

21

28

30

35

42

60

70

84

105

140

210

420

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Natural numbers are

0

1

2

3

4

5

6

7

8

9

10

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Even numbers are 2

Even numbers are 4

Even numbers are 6

Even numbers are 8

Even numbers are 10

Even numbers are 12

Even numbers are 14

Even numbers are 16

Even numbers are 18

Even numbers are 20

Even numbers are 22

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Odd numbers are 1

Odd numbers are 3

Odd numbers are 5

Odd numbers are 7

Odd numbers are 9

Odd numbers are 11

Odd numbers are 13

Odd numbers are 15

Odd numbers are 17

Odd numbers are 19

Odd numbers are 21

Odd numbers are 23

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Whole numbers are 1

Whole numbers are 2

Whole numbers are 3

Whole numbers are 4

Whole numbers are 5

Whole numbers are 6

Whole numbers are 7

Whole numbers are 8

Whole numbers are 9

Whole numbers are 10

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Multipels of 10 numbers [1, 3, 5, 7, 9]

10

20

30

40

50

60

70

80

90

100

110

120

130

140

150

160

170

180

190

200

210

220

230

240

250

260

270

280

290

300

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1 1

2 4

3 9

4 16

5 25

6 36

7 49

8 64

9 81

10 100

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

multipels of 7 105

multipels of 7 98

multipels of 7 91

multipels of 7 84

multipels of 7 77

multipels of 7 70

multipels of 7 63

multipels of 7 56

multipels of 7 49

multipels of 7 42

multipels of 7 35

multipels of 7 28

multipels of 7 21

multipels of 7 14

multipels of 7 7

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Enter the first number: 12

Enter the second number: 14

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

enter a number:2

2

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Enter the first number23

Enter the second number56

Result: 79

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Result of multiplication is: 54

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The youngest child is vishnu

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

My country name is USA

My country name is Europe

My country name is Brazil

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Members list are Anuj

Members list are Uma

Members list are Raja

Members list are Rama

Members list are Akash

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The answer is

6

15

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Enter the 1 number 25

Enter the 2 number 25

Enter the 3 number 48

Biggest number is 48

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Result of the addition is

20

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Result of the multiplication process is

-336

a and b are equal

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

a is greater

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

B

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Both conditions are true

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

one of the condition satisfied

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

number greater than 10: 41

number greater than 20: 41

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

number greater than 10: 19

but not above than 20: 19

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

While condition

1

2

3

4

5

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~