ARITHMETIC OPERATION:

PROGRAM:

a=int(input("Enter the value of A: "))

b=int(input("Enter the value of B: "))

print("\nThe Sum of A and B is ",a+b)

print("The Subraction of A and B is ",a-b)

print("The Multiplication of A and B is ",a\*b)

print("The Division of A and B is ",float(a/b))

print("The Modulus of a and B is ",float(a%b))

OUTPUT:

Enter the value of A: 1

Enter the value of B: 2

The Sum of A and B is 3

The Subtraction of A and B is -1

The Multiplication of A and B is 2

The Division of A and B is 0.5

The Modulus of a and B is 1.0

SWAPPING OF VALUES:

PROGRAM:

METHOD 1

a=int(input("Enter the value of x= "))

b=int(input("Enter the value of y= "))

temp=a

a=b

b=temp

print("\nThe new value of x= ",a)

print("The new value of y= ",b)

OUTPUT:

Enter the value of x= 16

Enter the value of y= 61

The new value of x= 61

The new value of y= 16

METHOD:2[USING COMMA (,) OPERATOR]

PROGRAM:

a=61

b=16

print("The values before swapping : ",a,' ,',b)

a,b=b,a

print("The values after swapping : ",a,' ,',b)

OUTPUT:

The values before swapping: 61, 16

The values after swapping: 16, 61

METHOD:3[USING ARITHMETIC OPERATOR]

PROGRAM:

a=61

b=16

print("The values before swapping are : ",a,',',b)

a=a+b

b=a-b

a=a-b

print("The values after swapping are : ",a,',',b)

OUTPUT:

The values before swapping are: 61 ,16

The values after swapping are: 16 ,61

METHOD 4 USING XOR OPERATOR:

PROGRAM:

a = 61

b = 16

print("The Values before Swapping are",a,’,’,b)

a = a ^ b

b = a ^ b

a = a ^ b

print("The Values after Swapping are",a,’,’,b)

OUTPUT:

The Values before Swapping are 61 ,16

The Values after Swapping are 16 ,61

DISTANCE BETWEEN TWO POINTS:

PROGRAM:

print("To find the distance between two points: ")

x1=float(input("\nEnter the value of x1 : "))

x2=float(input("Enter the value of x2 : "))

y1=float(input("Enter the value of y1 : "))

y2=float(input("Enter the value of y2 : "))

distance=float((x2-x1)\*\*2+(y2-y1)\*\*2)\*\*(1/2)

print("\nThe distance between two points : ",distance)

OUTPUT:

To find the distance between two points:

Enter the value of x1: 3

Enter the value of x2: 4

Enter the value of y1: 5

Enter the value of y2: 6

The distance between two points: 1.4142135623730951

FIND THE WEIGHT AND COST OF APPLE:

PROGRAM:

cost=int(input("Enter the price of apple for 1 kg: "))

weight=int(input("Enter the weight of apple in kg: "))

total= int(cost\*weight)

print("\nThe total cost of the apple purchased: ",total)

OUTPUT:

Enter the price of apple for 1 kg: 60

Enter the weight of apple in kg: 3

The total cost of the apple purchased: 180

TO FIND THE TOTAL OF BOOKS AND TO GIVE 5% DISCOUNT ON USING PYTHON PROGRAM:

PROGRAM:

n1= int(input(“Enter price of book 1:”))

n2= int(input(“Enter price of book 2:”))

n3= int(input(“Enter price of book 3:”))

n4= int(input(“Enter price of book 4:”))

n5= int(input(“Enter price of book 5:”))

Total = n1+n2+n3+n4+n5

Print(“The total price of the books :”,Total)

ad=float(input("Enter the amount of discount: "))

disc=float(Total\*(ad/100))

tot=float(Total-disc)

print("\nThe total amount of purchased books after applying discount is ",+tot)

OUTPUT:-

Enter price of book 1:500

Enter price of book 2:200

Enter price of book 3:150

Enter price of book 4:350

Enter price of book 5:400

The total price of books:1600

Enter the amount of discount: 5

The total amount of purchased books after applying discount is 1520.0

CONVERT FAHRENHEIT TO CELCIUS

PROGRAM:

F = int(input(“Enter the temperature in Fahrenheit :”))

Celsius = 5/9\*(F-32)

Print (“Fahrenheit into Celsius is :”,Celsius)

OUTPUT:

Enter the temperature in Fahrenheit :100

Fahrenheit into Celsius is :23.55555556

CALCULATE SIMPLE INTEREST

PROGRAM:

P=float(input("Enter the Initial Principal Balance(P): "))

T=float(input("Enter the Time(T): "))

R=float(input("Enter the Anual Interest Rate(R): "))

SI=float((P\*T\*R)/100)

print("The Simple Interest is ",SI)

OUTPUT:

Enter the Initial Principal Balance(P): 1000

Enter the Time(T): 2

Enter the Anual Interest Rate(R): 5

The Simple Interest is 100.0

>>>

CIRCULATING THE VALUES (METHOD-1 Using Inbuilt function)

PROGRAM:

lst=[]

v=int(input("Enter the number of values in list : "))

print('\n')

for i in range(0,v):

ele=int(input("Enter the elements= "))

lst.append(ele)

print("\n",lst)

print('\n')

j=0

for j in range(0,v):

cir=lst.pop(0)

lst.append(cir)

print("Circulated list after ",j+1,'is ',lst)

OUTPUT:

Enter the number of values in list: 5

Enter the elements= 1

Enter the elements= 2

Enter the elements= 3

Enter the elements= 4

Enter the elements= 5

[1, 2, 3, 4, 5]

Circulated list after 1 is [2, 3, 4, 5, 1]

Circulated list after 2 is [3, 4, 5, 1, 2]

Circulated list after 3 is [4, 5, 1, 2, 3]

Circulated list after 4 is [5, 1, 2, 3, 4]

Circulated list after 5 is [1, 2, 3, 4, 5]

CIRCULATING THE VALUES (METHOD-2)

PROGRAM:

def circulate(c,n):

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

d=c[i:]+c[:i]

print("Circulate","=",d)

return

c=[178,289,324,448,570,698,188,842,956,106]

n=int(input("Enter n :"))

circulate (c,n)

OUTPUT:

Enter n :6

Circulate = [289, 324, 448, 570, 698, 188, 842, 956, 106, 178]

Circulate = [324, 448, 570, 698, 188, 842, 956, 106, 178, 289]

Circulate = [448, 570, 698, 188, 842, 956, 106, 178, 289, 324]

Circulate = [570, 698, 188, 842, 956, 106, 178, 289, 324, 448]

Circulate = [698, 188, 842, 956, 106, 178, 289, 324, 448, 570]

Circulate = [188, 842, 956, 106, 178, 289, 324, 448, 570, 698]

PRIME NUMBER OR NOT:

PROGRAM:

g=int(input("Enter the Value of a :"))

i=2

for i in range(2,g):

if g%2==0:

print("The Given Number is NOT PRIME ")

break

else:

print("The Given Number is PRIME")

OUTPUT:

Enter the Value of a :5678

The Given Number is NOT PRIME

PROGRAM TO FIND THE GIVEN YEAR IS LEAP YEAR OR NOT:

PROGRAM:

Year=int(input("Enter the Year :"))

if(Year%4==0):

if(Year%100==0):

if(Year%400==0):

print("The given Year is Leap Year")

else:

print("The given Year is not a Leap Year")

OUTPUT:

Enter the Year :20000

The given Year is Leap Year.