Exchange Of Two Values

* Using Naive Approach( by introducing third variable temp.

PROGRAM:

a=int(input("enter number1: "))

b=int(input("enter number2: "))

temp=0

print("the value before swapping:",a," ",b)

temp=a

a=b

b=temp

print("the value after swapping:",a," ",b)

OUTPUT:

enter number1: 7

enter number2: 9

the value before swapping: 7 9

the value after swapping: 9 7

Exchange Of Two Values

* using comma(,) operator

PROGRAM

a=int(input("enter number1: "))

b=int(input("enter number2: "))

print("the value before swapping:",a," ",b)

a,b=b,a

print("the value after swapping:",a," ",b)

OUTPUT

enter number1: 9

enter number2: 56

the value before swapping: 9 56

the value after swapping: 56 9

Exchange Of Two Values

* using Arithmetic operator

PROGRAM

a=int(input("enter number1: "))

b=int(input("enter number2: "))

print("the value before swapping:",a," ",b)

a=a+b

b=a-b

a=a-b

print("the value after swapping:",a," ",b)

OUTPUT

enter number1: 8

enter number2: 3

the value before swapping: 8 3

the value after swapping: 3 8

Exchange Of Two Values

* using XOR operator

PROGRAM

a=int(input("enter number1: "))

b=int(input("enter number2: "))

print("the value before swapping:",a," ",b)

a=a^b

b=a^b

a=a^b

print("the value after swapping:",a," ",b)

OUTPUT

enter number1: 9

enter number2: 6

the value before swapping: 9 6

the value after swapping: 6 9

Circulating the list of values

* using in-Built functions

PROGRAM

s = int(input("Enter a the values in the list: "))

list = []

for i in range(0,s):

element = int(input("Enter the value: "))

list.append(element)

print("Circulating the list")

for i in range(0,s):

element\_deleted = list.pop(0)

list.append(element\_deleted)

print("The circulated list after", i + 1,'rotation',list)

OUTPUT

Enter a the values in the list: 6

Enter the value: 8

Enter the value: 6

Enter the value: 4

Enter the value: 3

Enter the value: 2

Enter the value: 1

Circulating the list

The circulated list after 1 rotation [6, 4, 3, 2, 1, 8]

The circulated list after 2 rotation [4, 3, 2, 1, 8, 6]

The circulated list after 3 rotation [3, 2, 1, 8, 6, 4]

The circulated list after 4 rotation [2, 1, 8, 6, 4, 3]

The circulated list after 5 rotation [1, 8, 6, 4, 3, 2]

The circulated list after 6 rotation [8, 6, 4, 3, 2, 1]

Circulating the list of values

* using slicing operator

PROGRAM

def circulate(c,n):

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

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

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

return

c=[1,4,6,7,8,9,10,13,17,18]

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

circulate(c,n)

OUTPUT

Enter n :6

Circulate = [4, 6, 7, 8, 9, 10, 13, 17, 18, 1]

Circulate = [6, 7, 8, 9, 10, 13, 17, 18, 1, 4]

Circulate = [7, 8, 9, 10, 13, 17, 18, 1, 4, 6]

Circulate = [8, 9, 10, 13, 17, 18, 1, 4, 6, 7]

Circulate = [9, 10, 13, 17, 18, 1, 4, 6, 7, 8]

Circulate = [10, 13, 17, 18, 1, 4, 6, 7, 8, 9]

Calculate the distance between two points

PROGRAM

import math

print("to find the distance between two point")

x1=int(input("enter x1 value: "))

y1=int(input("enter y1 value: "))

x2=int(input("enter x2 value: "))

y2=int(input("enter y2 value: "))

d=(pow(x2-x1,2)+pow(y2-y1,2))\*\*1/2

print("the distance between the point is " ,d)

OUTPUT

to find the distance between two point

enter x1 value: 40

enter y1 value: 50

enter x2 value: 35

enter y2 value: 90

the distance between the point is 812.5

Real part and imaginary part of a complex number

PROGRAM

cn = complex(2,3)

print("Complex Number: ",cn)

print("Complex Number - Real part: ",cn.real)

print("Complex Number - Imaginary part: ",cn.imag)

OUTPUT

Complex Number: (2+3j)

Complex Number - Real part: 2.0

Complex Number - Imaginary part: 3.0