SWAPPING NUMBERS

METHOD 1

PROGRAM:

```
x=int(input("enter value of x:"))
y= int(input("enter value of y:"))
print(“Before Swapping:”,x,y)

c=x
x=y
y=c
print(“After swapping:”,x,y)
```

OUTPUT:

Enter value of x: 5

Enter value of y: 6

Before Swapping 5,6

After Swapping 6,5

METHOD 2:

PROGRAM:

```
s = 10`
 t = 20
print("The values before Swapping : ",s,t)
s, t = s, t
print("The values after Swapping : ",s,t)
```

OUTPUT:

The values before Swapping: 10 20

The values after Swapping: 20 10

METHOD 3:

PROGRAM:

```
x = 35
y = 15
print(“Values before Swap",x,y)
x = x + y
 y = x - y
x = x - y
print("Values after Swap",x,y)
```

OUTPUT:

Values before swap 35 15

Values after swap 15 35

METHOD 4:

PROGRAM:

```
j = 58
k = 46
print("The Values before Swapping are",j,k)
j = j ^ k
k = j ^ k
j = j ^ k
 print("The Values after Swapping are",j,k)
```

OUTPUT:

The Values before Swapping are 58 46

The Values after Swapping are 46 58

DISTANCE BETWEEN 2 POINTS:

PROGRAM:

```
x1=int(input("enter  x1:"))
x2= int (input("enter x2:"))
y1=int(input("enter  y1:"))
y2= int (input("enter y2:"))
d=(((x2-x1)**2+(y2-y1)**2)**(1/2))
Print("The distance between the points is:",d)
```

OUTPUT:

Enter x1: 4

Enter x2: 6

Enter y1: 0

Enter y2; 6

The distance between the points is: 6.324553320336759

CIRCULATING NUMBERS

METHOD 1:

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(list)
```

OUTPUT:

```
Enter a the Values in the List :3
Enter the Value :5
Enter the Value :9
Enter the Value :2
Cieculating the elements of the list [5,9,2]
[9,2,5]
[2,5,9]
[5,9,2]
```

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]
```