

Program:

```
#Swapping two number
```

```
p=int(input("enter the first value:"))
```

```
q=int(input("enter the second value:"))
```

```
print("the value before swapping are",p,q)
```

```
temp=p
```

```
p=q
```

```
q=temp
```

```
print("the value after swapping are",p,q)
```

Output:

```
enter the first value:6
```

```
enter the second value:26
```

```
the value before swapping are 6 26
```

```
the value after swapping are 26 6
```

Program:

```
#Swapping two number(using comma operator)
```

```
s=59
```

```
t=16
```

```
print("the value before swapping:",s,t)
```

```
s,t=s,t
```

```
print("the value after swapping:",s,t)
```

Output:

```
the value before swapping: 59 16
```

```
the value after swapping: 59 16
```

Program:

```
#Swapping two number(using arithmetic operator)
```

```
x=45
```

```
y=25
```

```
print("the value before swapping are",x,y)
```

```
x=x+y
```

```
y=x-y
```

```
x=x-y
```

```
print("the value after swapping are",x,y)
```

Output:

```
the value before swapping are 45 25
```

```
the value after swapping are 25 45
```

Program:

```
#swapping two number(using XOR gate)
```

```
j=58
```

```
k=46
```

```
print("the vallue before swapping are",j,k)
```

```
i=j^k
```

```
k=j^k
```

```
j=j^k
```

```
print("the value after swapping are",j,k)
```

Output:

```
the vallue before swapping are 58 46
```

```
the value after swapping are 46 20
```

Program:

```
#Circulate the n variable(using inbuilt function)
s=int(input("enter a the value 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 ciculated list after",i+1,"rotation",list)
```

Output:

```
enter a the value in the list8
enter the value:5
enter the value:9
enter the value:2
enter the value:1
enter the value:7
enter the value:0
enter the value:3
enter the value:2
circulating the list
the ciculated list after 1 rotation [9, 2, 1, 7, 0, 3, 2, 5]
the ciculated list after 2 rotation [2, 1, 7, 0, 3, 2, 5, 9]
the ciculated list after 3 rotation [1, 7, 0, 3, 2, 5, 9, 2]
the ciculated list after 4 rotation [7, 0, 3, 2, 5, 9, 2, 1]
```

the circulated list after 5 rotation [0, 3, 2, 5, 9, 2, 1, 7]

the circulated list after 6 rotation [3, 2, 5, 9, 2, 1, 7, 0]

the circulated list after 7 rotation [2, 5, 9, 2, 1, 7, 0, 3]

the circulated list after 8 rotation [5, 9, 2, 1, 7, 0, 3, 2]

program:

#circulate the value of n variable

def circulate(c,n):

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

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

print("circulate","=",d)

result

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]

Program:

#Distance between the two points

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

```
x2=int(input("enter the value of x2:"))
y1=int(input("enter the value of y1:"))
y2=int(input("enter the value of y2:"))
d1=(x2-x1)**2
d2=(y2-y1)**2
result=(d1+d2)**0.5
print("distance between",(x1,x2),"and",(y1,y2),"is:",result)
```

Output:

```
enter the value of x1:2
enter the value of x2:6
enter the value of y1:4
enter the value of y2:7
distance between (2, 6) and (4, 7) is: 5.0
```

Program:

Area of triangle using heron's formula

```
a=float(input("enter first side:"))
b=float(input("enter second side:"))
c=float(input("enter third side:"))
s=(a+b+c)
area=(s*(s-a)*(s-b)*(s-c)**0.5)
print("the area of the triangle is %0.2f"%area)
```

Output:

```
enter first side:2.3
enter second side:5.6
enter third side:8.3
the area of the triangle is 6708.87
```

Program:

Area of circle

```
def FindArea(r):
```

```
    PI=3.14
```

```
    return PI*(r*r);
```

```
print("Area is %0.6f"% FindArea(5))
```

Output:

Area is 78.500000