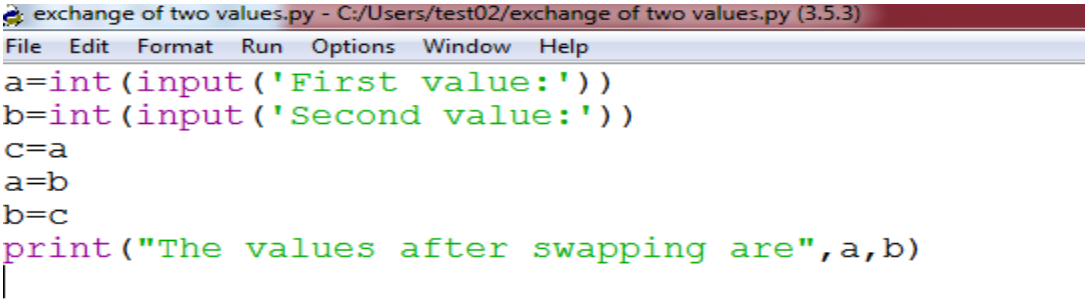
1.a.EXCHANGE OF TWO VALUES USING THIRD VARIABLE



OUTPUT:

```
First value:23
Second value:45
The values after swapping are 45 23
>>>
```

b.EXCHANGE OF VALUES USING COMMA OPERATOR

```
x=int(input('First value:'))
y=int(input('Second value:'))
x,y=y,x
print("The exchanged values are",x,y )
```

OUTPUT:

```
First value:47
Second value:89
The exchanged values are 89 47
>>>
```

C.EXCHANGE OF VALUES USING ARITHMETIC OPERATOR

```
a=int(input("First value"))
b=int(input("Second value"))
a=a+b
b=a-b
a=a-b
print("The values after swapping are",a,b)
```

OUTPUT:

```
First value10
Second value16
The values after swapping are 16 10
>>>
```

d.EXCHANGE OF VALUES USING XOR OPERATOR

```
a=int(input("First value:"))
b=int(input("Second value:"))
a=a^b
b=a^b
a=a^b
print("The swapping values are",a,b)
```

OUTPUT:

```
First value:35
Second value:70
The swapping values are 70 35
>>>
```

2.a.CIRCULATING THE LIST OF VALUES USING IN-BUILD FUNCTION

```
a=input("Enter values:").split(',')
print('The original list is{a}','\n','Circulating the list')
for i in range(len(a)):
    a.append(a[0])
    a.pop(0)
    print(a)
```

OUTPUT:

```
Enter values:1,2,3,4,5
The original list is{a}
 Circulating the list
['2', '3', '4', '5', '1']
['3', '4', '5', '1', '2']
['4', '5', '1', '2', '3']
['5', '1', '2', '3', '4']
['1', '2', '3', '4', '5']
>>>
```

b.CIRCULATING THE LIST OF VALUES USING SLICING OPERATOR

```
a=input("Enter values:").split(',')
print('The original list is{a}','\n','circulating the list')
for i in range(len(a)):
    cir=a[1:]+[a[0]]
    print(cir)
```

OUTPUT:

```
Enter values:1,2,3,4,5
The original list is{a}
 circulating the list
['2', '3', '4', '5', '1']
['2', '3', '4', '5', '1']
['2', '3', '4', '5', '1']
['2', '3', '4', '5', '1']
['2', '3', '4', '5', '1']
>>>
```

3.CALCULATE THE DISTANCE BETWEEN TWO POINTS

```
x1=int(input("Enter x1:"))
x2=int(input("Enter x2:"))
y1=int(input("Enter y1:"))
y2=int(input("Enter 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 x1:3
Enter x2:4
Enter y1:6
Enter y2:7
Distance between (3, 4) and (6, 7) is 1.4142135623730951
>>>
```