Practical No. 6A

Write a program to implement 2D scaling.

```
from graphics import *
win = GraphWin("Scale Square", 600, 600)
print("Corner 1")
x1=int(input("Enter x"))
y1=int(input("Enter y"))
c1=Point(x1, y1)

print("Corner 2")
x2=int(input("Enter x"))
y2=int(input("Enter y"))
c2 = Point(x2, y2)

s = Rectangle(c1, c2)
s.draw(win)

sx=float(input("Scaling Factor sx"))
sy=float(input("Scaling Factor sy"))

x1*=sx
x2*=sx
y1*=sy
y2*=sy
c1=Point(x1, y1)
c2 = Point(x2, y2)

ss=Rectangle(c1, c2)
ss.draw(win)

win.getMouse()
win.close()
```

```
Corner 1
Enter x50
Enter y50
Corner 2
Enter x200
Enter y200
Scaling Factor sx2
Scaling Factor sy2
```

Practical 6 B

Write a program to implement 2D translation.

```
from graphics import *
win = GraphWin("Translate Rectangle", 600, 600)

print("Corner 1")
x1=int(input("Enter x"))
y1=int(input("Enter y"))
c1=Point(x1, y1)

print("Corner 2")
x2=int(input("Enter x"))
y2=int(input("Enter y"))
c2 = Point(x2, y2)

r = Rectangle(c1, c2)
r.draw(win)

dx=int(input("Translation tx"))
dy=int(input("Translation ty"))

x1+=dx
x2+=dx
y1+=dy
y2+=dy

c1 = Point(x1,y1)
c2 = Point(x2, y2)
rt=Rectangle(c1, c2)
rt.draw(win)

win.getMouse()
win.close()
```

```
Corner 1
Enter x100
Enter y100
Corner 2
Enter x250
Enter y250
Translation tx100
Translation ty100
```