

# **Implementation of Bresnham line Drawing Algorithm(Python)**

## **Algorithm:Bresenham's Line Drawing**

step 1:Input the two end point of the line:(x<sub>1</sub>,y<sub>1</sub>) and (x<sub>2</sub>,y<sub>2</sub>)

step2:Calculate the differences:dx=x<sub>2</sub>-x<sub>1</sub> and dy=y<sub>2</sub>-y<sub>1</sub>

step3:Initialize the decision parameter:p<sub>0</sub>=2dy-dx

step4:Set the starting point:x=x<sub>1</sub> and y=y<sub>1</sub>

step5:Plot the first point(x,y)

step6:Repeat the following steps until x=x<sub>2</sub>:

If p<0: x=x+1 and p=p+2dy else: x=x+1,y=y+1 and p=p+2(dy-dx),plot the point(x,y)

step7:stop