**Line Drawing**

# include <stdio.h>

# include <conio.h>

# include <graphics.h>

void main()

{

int dx,dy,x,y,p,x1,y1,x2,y2;

int gd,gm;

clrscr();

printf("\n\n\tEnter the co-ordinates of first point : ");

scanf("%d %d",&x1,&y1);

printf("\n\n\tEnter the co-ordinates of second point : ");

scanf("%d %d",&x2,&y2);

dx = (x2 - x1);

dy = (y2 - y1);

p = 2 \* (dy) - (dx);

x = x1;

y = y1;

detectgraph(&gd,&gm);

initgraph(&gd,&gm,"c:\\tc\\bgi");

putpixel(x,y,3);

while(x <= x2)

{

if(p < 0)

{

x=x+1;

y=y;

p = p + 2 \* (dy);

}

else

{

x=x+1;

y=y+1;

p = p + 2 \* (dy - dx);

}

putpixel(x,y,3);

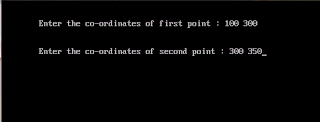
}

getch();

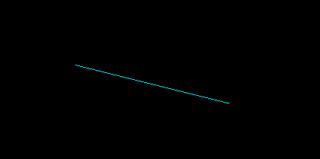
closegraph();

}

**Input:**

[](https://2.bp.blogspot.com/-rtp-2tN4nV4/WM5idspK10I/AAAAAAAAADU/dYUQ0SVWpKkFdDFBb2dpa_ScNqElHRbhgCLcB/s1600/new1.GIF)

**Output:**

[](https://1.bp.blogspot.com/-Tf13dg1FxpE/WM5id19NU1I/AAAAAAAAADY/7DH1BELYb8QEOLXDj9b5yyzTh_sDWYt7ACLcB/s1600/new2.GIF)