1. **MIDPOINT LINE**

```
#include<graphics.h>
#include<iostream.h>
#include<dos.h>
void main( )
{
int x0,y0,x1,y1,dx,dy,d,pE,pNE;
int i,gd=DETECT,gm;
initgraph(&gd,&gm,"C:\\TURBOC3\\BGI");

cout<<"Enter the value of x0 : ";
cin>>x0;
cout<<"Enter the value of y0 : ";
cin>>y0;
cout<<"Enter the value of x1 : ";
cin>>x1;
cout<<"Enter the value of y1 : ";
cin>>y1;

dx= x1-x0;
dy= y1-y0;
d= 2*dy - dx;
pE= 2*dy;
pNE= 2*(dy-dx);

int x=x0;
int y=y0;

putpixel(x,y,15);

while(x<x1)
{
  if(d<=0)
   {
     d = d+pE;
   }
   else
   {
     d = d+pNE;
     y++;
   }
   x++;
   putpixel(x,y,15);
}
```

```
delay(100000);
closegraph();
}
```