Aim: To implement DDA algorithm for drawing segment between two given end points.

Algorithm:

DDA Algorithm

```
{
 dx=x2-x1;
 dy=y2-y1;
if(abs(dx)>abs(dy))
{
Step=dx;
}
else
{
step=dy;
}
Xn=dx/step;
Yn=dy/step;
for(int i=0; i<=step; i++))
{
        Putpixel (x1,y1,WHITE);
        x1=x1+xn;
        y1=y1+yn;
}
}
```

program

```
#include<stdio.h>
```

```
#include<math.h>
#include<conio.h>
#include<stdio.h>
#include<graphics.h>
void main()
{
int x1,x2,y1,y2,xn,yn,dx,dy,step,i;
int gd=DETECT, gm;
initgraph(&gd,&gm,"C:\\TURBOC3\\bgi");
printf("enter xi & yi");
scanf("%d %d", &x1, &y1);
printf("Enter x2 & y2");
scanf("%d %d", &x2, &y2);
dx=x2-x1;
dy=y2-y1;
if(abs(dx) >= abs(dy)
{
step=dx;
}
else{
step=dy;
}
xn=dx/step;
yn=dy/step;
for(i=0;i<=step; i++)
```

```
{
putpixel(x1,y1, WHITE);
x1=x1+xn;
y1=y1+yn;
}
getch();
closegraph();
}
```

output: