

PRACTICAL 2:

AIM: Write a Program to draw line using Digital Differential Analyzer Algorithm.

Source Code:

```
#include <graphics.h>
#include <stdio.h>
#include <math.h>
#include <dos.h>

void main( )
{
float x,y,x1,y1,x2,y2,dx,dy,step;
int i,gd=DETECT,gm;

initgraph(&gd,&gm,"c:\\turbo3\\bgi");

printf("Enter the value of x1 and y1 : ");
scanf("%f%f",&x1,&y1);
printf("Enter the value of x2 and y2: ");
scanf("%f%f",&x2,&y2);

dx=abs(x2-x1);
dy=abs(y2-y1);

if(dx>=dy)
step=dx;
else
step=dy;

dx=dx/step;
dy=dy/step;
x=x1;
y=y1;
i=1;
while(i<=step){
putpixel(x,y,5);
x=x+dx;
y=y+dy;
i=i+1;
delay(100);
}
closegraph();
}
```

Output:

```
Enter the value of x1 and y1 : 100
100
Enter the value of x2 and y2: 150
150
```

