Name - Laxmikant S Babaleshwar
Class - SE -AI&DS- C1
Roll No - 20

```c
//Line drawing Algorithm
#include<graphics.h>
int main()
{
        int gd = DETECT ,gm, i;
        float x, y,dx,dy,steps,xin,yin;
        int x0, x1, y0, y1;
        initgraph(&gd, &gm, NULL);
        setbkcolor(WHITE);
        x0 = 100 , y0 = 100, x1 = 500, y1 = 100;
        dx = (float)(x1 - x0);
        dy = (float)(y1 - y0);
        if(dx>=dy)
        {
                steps = dx;
        }
        else
        {
                steps = dy;
        }
        xin = dx/steps;
        yin = dy/steps;
        x = x0;
        y = y0;

        for(i=1;i<=steps;i++)
        {
                putpixel(x, y, BLACK);
                x =x + xin;
        y =y + yin;
        }

        getch();
        closegraph();
}
```

COMMAND:

```
(base) oem@ubuntu6:~$ gcc line.cpp -o line -lgraph
(base) oem@ubuntu6:~$ ./line
```

OUTPUT:

SDL-libgraph -- Graphics on GNU/Linux