INPUT

```
#include<GL/glut.h>
#include<stdlib.h>
#include<stdio.h>

float x1, x2, y2, y3;

void display(void)
{
  float dy, dx, step, x, y, k, Xin, Yin;
  dx = x2 - x1;
  dy = y3 - y2;

  if(abs(dx)>abs(dy))  // Find out whether to increment x or y
   {
     step = abs(dx);
   }
   else
    step = abs(dy);
    Xin = dx/step;
    Yin = dy/step;

    x = x1;
    y = y2;

    glBegin(GL_POINTS); // /* Plot the points
    glVertex2i(x, y);
    glEnd();
    // For every step, find an intermediate vertex
    for(k=1; k<=step; k++)
    {
      x = x + Xin;
      y = y + Yin;

      glBegin(GL_POINTS);
      glVertex2i(x, y);
      glEnd();
    }

    glFlush();
}

void init(void)
 {
  glClearColor(0.7, 0.7, 0.7, 0.7); // Set clear color to white
  glMatrixMode(GL_PROJECTION);
  glLoadIdentity();
  gluOrtho2D(-100, 100, -100, 100);
 }

 int main(int argc, char**argv)
```

```
{
 printf("Enter the value of x1 :");
 scanf("%f", &x1);
 printf("Enter the value of y2 :");
 scanf("%f", &y2);
 printf("Enter the value of x2 :");
 scanf("%f", &x2);
 printf("Enter the value of y2 :");
 scanf("%f", &y3);

 glutInit(&argc, argv);
 glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB);
 glutInitWindowSize(500, 500);
 glutInitWindowPosition(100, 100);
 glutCreateWindow("DDA Line Algo");
 init();
 glutDisplayFunc(display);
 glutMainLoop();

  return 0;
}
```