```
#include<stdio.h>   #include<GL/glut.h>
int x1,y1,x2,y2;    int n;
int endpoints[8][4];
 void draw_pixel(int x,int y){
glColor3f(0.0,0.0,1.0);   glBegin(GL_POINTS);
glVertex2i(x,y);     glEnd();  }
void draw_line(int x1,int y1,int x2,int y2){
int dx,dy,i,p;     int incx,incy,inc1,inc2;
int x,y;   dx=x2-x1;   dy=y2-y1;
if( dx < 0) dx=-dx;   if(dy < 0) dy=-dy;
incx=1;   incy=1;    x=x1;y=y1;
if( x2 < x1) incx=-1;    if( y2 < y1) incy=-1;
if( dx > dy){
draw_pixel(x,y);   inc1=2*(dy-dx);
inc2=2*dy;    p=2*dy-dx;
for(i=0;i<dx;i++){
if(p>=0){
y+=incy;     p+=inc1;
}else{
p+=inc2; }
x+=incx;     draw_pixel(x,y);  }   }
else{
draw_pixel(x,y);   inc1=2*(dx-dy);
inc2=2*dx;    p=2*dx-dy;
for(i=0;i<dy;i++){
if(p>=0){
x+=incx;     p+=inc1;
}else{ p+=inc2; }
y+=incy;    draw_pixel(x,y);   }  }  }
void bresnham(){
int i;    glClearColor(1.0,1.0,1.0,1.0);
glClear(GL_COLOR_BUFFER_BIT);
for(i=0;i<n;i++){
x1=endpoints[i][0];y1=endpoints[i][1];x2=endpoints[i]
[2];y2=endpoints[i][3];
draw_line(x1,y1,x2,y2);    glColor3f(1.0,0.0,0.0);
glBegin(GL_LINES);   glVertex2i(x1,y1);
glVertex2i(x2,y2);    glEnd();    glFlush();  }   }
void myInit(){
glMatrixMode(GL_PROJECTION);glLoadIdentity();
gluOrtho2D(0,500,0,500);
glMatrixMode(GL_MODELVIEW);   }
void main(int argc,char** argv){
int i;   printf("Enter number of endpoints:\n");
scanf("%d",&n);
for(i=0;i<n;i++){
printf("Enter the endpoints of line %d\n",i);
scanf("%d%d%d%d",&endpoints[i][0],&endpoints[i][
1],&endpoints[i][2],&endpoints[i][3]);          }
glutInit(&argc,argv);
glutInitDisplayMode(GLUT_SINGLE|GLUT_RGB);
glutInitWindowPosition(100,100);
glutInitWindowSize(500,500);
glutCreateWindow("Bresenham line drawing");
glutDisplayFunc(bresnham);   myInit();
glutMainLoop();   }
```