```c
//Liang Barsky

#include<stdio.h>

#include<graphics.h>

#include<math.h>

#include<dos.h>

void main()
{
int i,gd=DETECT,gm;

int x1,y1,x2,y2,xmin,xmax,ymin,ymax,xx1,xx2,yy1,yy2,dx,dy;

float t1,t2,p[4],q[4],temp;

x1=120;

y1=120;

x2=300;

y2=300;

xmin=100;

ymin=100;

xmax=250;

ymax=250;

initgraph(&gd,&gm,"c:\\turboc3\\bgi");

rectangle(xmin,ymin,xmax,ymax);

dx=x2-x1;

dy=y2-y1;

p[0]=-dx;

p[1]=dx;
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p[2]=-dy;

p[3]=dy;

q[0]=x1-xmin;

q[1]=xmax-x1;

q[2]=y1-ymin;

q[3]=ymax-y1;

for(i=0;i<4;i++)

{

if(p[i]==0)

{

printf("line is parallel to one of the clipping boundary");

if(q[i]>=0)

{

if(i<2)

{

if(y1<ymin)

{

y1=ymin;

}

if(y2>ymax)

{

y2=ymax;

}

line(x1,y1,x2,y2);

}
```

```
if(i>1)

{

if(x1<xmin)

{

x1=xmin;

}

if(x2>xmax)

{

x2=xmax;

}

line(x1,y1,x2,y2);

}

}

}

}

t1=0;

t2=1;

for(i=0;i<4;i++)

{

temp=q[i]/p[i];

if(p[i]<0)

{

if(t1<=temp)

t1=temp;

}
```

```
else

{

if(t2>temp)

t2=temp;

}

}

if(t1<t2)

{

xx1 = x1 + t1 * p[1];

xx2 = x1 + t2 * p[1];

yy1 = y1 + t1 * p[3];

yy2 = y1 + t2 * p[3];

line(xx1,yy1,xx2,yy2);

}

delay(5000);

closegraph();

}
```

OUTPUT:-