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#include<stdio.h>

#include<graphics.h>

#include<math.h>

#include<dos.h>


int 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," ");

    rectangle(xmin,ymin,xmax,ymax);

    dx=x2-x1;

    dy=y2-y1;

    p[0]=-dx;

    p[1]=dx;

    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++)

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{
    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();
}

```

