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Roll No: 6
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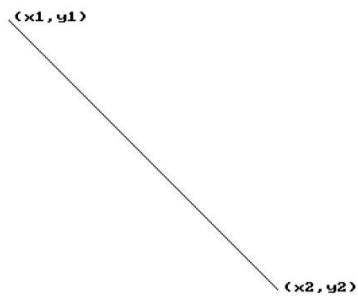
```
#include<stdio.h>
#include<conio.h>
#include<graphics.h>
#include<math.h>
float round(float a);
void main()
int x1,y1,x2,y2,N,k;
float x,y,dx,dy,m,P;
printf("Enter x1,y1: ");
scanf("%d%d",&x1,&y1);
printf("Enter x2,y2: ");
scanf("%d%d",&x2,&y2);
initgraph(&gd,&gm,"c:\\turbo3\\BGI");
dx=x2-x1;
dy=y2-y1;
if(abs(dx)>abs(dy))
{
N=abs(dx);
}
else
{
N=abs()dy;
}
P=2*dy-dx;
x=x1+1;
y=y1;
putpixel(round(x),round(y),WHITE);
m=dy/dx;
for(k=1;k<=N;k++)
  {
   if(m<1)
     {
      if(p<0)
        {
         x=x+1;
         P=P+2*dy;
        }
      else
        {
        x=x+1;
        y=y+2;
        P=P+2*(dy-dx);
        }
     }
    else
     {
      if(P<0)
```

```
    {
     y=y+1;
     P=P+2*dx;
    }
    else
    {
     x=x+1;
     y=y+1;
     P=P+2(dx-dy);
    }
   }
delay(100);
putpixel(round(x),round(y),WHITE);
 }
outtextxy(200,20,"Bresenham's line drawing");
outtextxy(x1+5,y1-5,"(x1,y1)");
outtextxy(x2+5,y2-5,"(x2,y2)");
getch();
closegraph();
}
float round(float a)
{
int b=a+0.5;
return b;
}
```

Bresenham's line drawing

(x1,y1)

(x2,y2)