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#include<stdio.h>
#include<graphics.h>
#include<math.h>
#include<conio.h>
float round(float a);
void symmetry(int,int,int,int);
void main()
{
    int gd=DETECT,gm;
    int x1,y1,r,P,k;
    float x,y,z;
    printf("Enter x,y: ");
    scanf("%d%d",&x1,&y1);
    printf("Enter radius of circle: ");
    scanf("%d",&r);
    initgraph(&gd,&gm,"c:\\turboC3\\BGI");
    x=0;
    y=r;
    P=1-r;
    symmetry(x,y,x1,y1);
    for(x=0;x<=y;x++)
    {
        if(P<0)
        {
            P=P+2*(x+3);
            y=y;
        }

        else
        {
            P=P+(2*x-2*y+5);
            y=y-1;
        }
        symmetry(x,y,x1,y1);
    }
    outtextxy(200,20,"Midpoint Circle Drawing Algorithm");
    getch();
    closegraph();
}

void symmetry(int x,int y,int x1,int y1)
{
    putpixel(x1+x,y1-y,WHITE);
    delay(50);
    putpixel(x1+y,y1-x,WHITE);
    delay(50);
    putpixel(x1+y,y1+x,WHITE);
    delay(50);
    putpixel(x1+x,y1+y,WHITE);
```

```
delay(50);  
putpixel(x1-x,y1-y,WHITE);  
delay(50);  
putpixel(x1-y,y1-x,WHITE);  
delay(50);  
putpixel(x1-x,y1+y,WHITE);  
delay(50);  
putpixel(x1-x,y1+y,WHITE);  
delay(50);  
}
```

Midpoint Circle Drawing Algorithm

