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1  //SHREYAS SAWANT D7A 55
2  //Implement midpoint circle algorithm
3  #include "graphics.h"
4  #include "conio.h"
5  int x0,y0,r,p0;
6  void drawCircle(int x1,int y1)
7  {   int c=9;
8      //FIRST QUAD
9      putpixel(x1+x0,y0-y1,c);
10     putpixel(x0+y1,y0-x1,c);
11
12     //SECOND QUAD
13     putpixel(x0-x1,y0-y1,c);
14     putpixel(x0-y1,y0-x1,c);
15
16     //THIRD QUAD
17     putpixel(x0-x1,y1+y0,c);
18     putpixel(x0-y1,y0+x1,c);
19
20     //FOURTH QUAD
21     putpixel(x1+x0,y1+y0,c);
22     putpixel(x0+y1,y0+x1,c);
23 }
24 int main()
25 {
26     printf("Enter the x and y coordinates of circle: ");
27     scanf("%d%d",&x0,&y0);
28     printf("Enter the radius of circle: ");
29     scanf("%d",&r);
30     int gd=DETECT,gm;
31     initgraph(&gd,&gm,(char*)"");
32     int xk=0;int yk=r;
33     p0=1-r;
34     while(xk<=yk)
35     {if (p0<0)
36         {
37             xk++;
38             p0=p0+2*xk+1;
39         }
40         else
41         {
42             xk++;
43             yk--;
44             p0=p0-2*yk+2*xk+1;
45         }
46     }
47     drawCircle(xk,yk);
48 }
49 getch();
50 closegraph();
51 restorecrtmode();
52 }
53

```

"C:\Users\user\Desktop\SHREYAS\SEM II\CircleGenerator.exe"

Enter the x and y coordinates of circle: 250 300

Enter the radius of circle: 150

