

```

1  #include<stdio.h>
2  #include <conio.h>
3  #include <graphics.h>
4  #include <math.h>
5  #include <dos.h>
6  int main()
7  {
8      long int d1,d2;
9      int i,gd=DETECT,gm,x,y;
10     long int rx,ry,rxsq,rysq,tworxsq,tworysq,dx,dy;
11     printf("Enter the x Radius of the ellipse");
12     scanf("%ld",&rx);
13     printf("Enter the y Radius of the ellipse");
14     scanf("%ld",&ry);
15     initgraph(&gd,&gm,NULL);
16     rxsq=rx*rx;
17     rysq=ry*ry;
18     tworxsq=2*rxsq;
19     tworysq=2*rysq;
20     x=0;
21     y=ry;
22     d1=rysq - (rxsq * ry) + (0.25 * rxsq);
23     dx= tworysq * x;
24     dy= tworxsq * y;
25     do
26     {
27         putpixel(200+x,200+y,15);
28         putpixel(200-x,200-y,15);
29         putpixel(200+x,200-y,15);
30         putpixel(200-x,200+y,15);
31         if (d1 < 0)
32         {
33             x=x+1;
34             y=y;
35             dx=dx + tworysq;
36             d1=d1 + dx + rysq;
37         }
38         else
39         {
40             x=x+1;
41             y=y-1;
42             dx= dx + tworysq;
43             dy= dy - tworxsq;
44             d1= d1 + dx - dy + rysq;
45         }
46         delay(50);
47     }
48     while (dx < dy);
49     d2 = rysq * ( x + 0.5 ) * ( x + 0.5 ) + rxsq * (y - 1) * (y-1) - rxsq * rysq;
50     do
51     {
52         putpixel(200+x,200+y,15);
53         putpixel(200-x,200-y,15);
54         putpixel(200+x,200-y,15);
55         putpixel(200-x,200+y,15);
56
57         if (d2 >0)
58         {
59             x=x;
60             y=y-1;
61             dy = dy - tworxsq;
62             d2 = d2 - dy + rxsq;
63         }
64         else
65         {
66             x= x+1;
67             y=y-1;
68             dy=dy - tworxsq;
69             dx= dx + tworysq;
70             d2 = d2 + dx -dy + rxsq;
71         }
72         delay(50);
73     }
74     while ( y> 0);
75     getch();
76     closegraph();
77 }
78

```