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**EXPERIMENT NO. 5**

**CODE:**

#include<graphics.h>

#include<conio.h>

#include<stdio.h>

void main()

{

long int a,b,x,y;

float p;

int gd=DETECT,gm;

initgraph(&gd,&gm,"");

printf("Enter the x-radius and y-radius of ellipse:");

scanf("%ld%ld",&a,&b);

line(320,0,320,480);

line(0,240,640,240);

x=0;

y=b;

p=b\*b-a\*a\*b+(a\*a)/4;

while((2\*b\*b\*x)<(2\*a\*a\*y))

{

if(p<0)

{

x=x+1;

p=p+2\*b\*b\*x+b\*b;

}

else

{

x=x+1;

y=y-1;

p=p+2\*b\*b\*x-2\*a\*a\*y+b\*b;

}

putpixel(x+320,y+240,WHITE);

putpixel(x+320,-y+240,WHITE);

putpixel(-x+320,-y+240,WHITE);

putpixel(-x+320,y+240,WHITE);

}

p=b\*b\*(x+0.5)\*(x+0.5)+a\*a\*(y-1)\*(y-1)-a\*a\*b\*b;

while(y>0)

{

if(p>0)

{

y=y-1;

p=p-2\*a\*a\*y+a\*a;

}

else

{

x=x+1;

y=y-1;

p=p+2\*b\*b\*x-2\*a\*a\*y+a\*a;

}

putpixel(x+320,y+240,WHITE);

putpixel(x+320,-y+240,WHITE);

putpixel(-x+320,-y+240,WHITE);

putpixel(-x+320,y+240,WHITE);

}

getch();

closegraph();

}

**OUTPUT:**

