***//17.Square Within Circle//***

#include<conio.h>

#include<stdio.h>

#include<math.h>

#include<dos.h>

#include<graphics.h>

void ddaline(int,int,int,int);

void plotcircle(int,int,int,int);

void brecircle(int,int,int);

void main(){

int steps,dx,dy,k,x1,y1,x2,y2,gd=DETECT,gm;

float x,y,yinc,xinc;

initgraph(&gd,&gm,"C:\\turboc3\\bgi");

ddaline(100,100,100,160);

ddaline(100,160,260,160);

ddaline(260,160,260,100);

ddaline(260,100,100,100);

brecircle(131,130,43);

getch();

}

void ddaline(int x1,int y1,int x2,int y2){

int dx,dy,steps,k;

float x,y,xinc,yinc;

dx=x2-x1;

dy=y2-y1;

if(abs(dx)>=abs(dy))

steps=abs(dx);

else

steps=abs(dy);

xinc=dx/steps;

yinc=dy/steps;

x=x1;

y=y1;

putpixel(x,y,15);

for(k=0;k<steps;k++){

x=x+xinc;

y=y+yinc;

putpixel(x,y,15);

delay(30);

}

}

void brecircle(int xc,int yc,int r){

int x,y,p;

x=0;

y=r;

p=1-r;

plotcircle(xc,yc,x,y);

while(x<y){

x++;

if(p<0){

p=p+2\*x+1;

}

else{

y--;

p=p+2\*(x-y)+1;

}

plotcircle(xc,yc,x,y);

}

}

void plotcircle(int xc,int yc,int x,int y){

putpixel(xc+x,yc+y,15);

putpixel(xc-x,yc+y,15);

putpixel(xc+x,yc-y,15);

putpixel(xc-x,yc-y,15);

putpixel(xc+y,yc+x,15);

putpixel(xc-y,yc+x,15);

putpixel(xc+y,yc-x,15);

putpixel(xc-y,yc-x,15);

}

***Output:*** 