***//10.Circle within Triangle//***

#include<stdio.h>

#include<conio.h>

#include<graphics.h>

#include<math.h>

#include<dos.h>

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

void brescircle(int,int,int);

void main()

{

int xc,yc,r,gd=DETECT,gm;

initgraph(&gd,&gm,"c://turboc3//bgi");

line(200,100,150,200);

line(150,200,250,200);

line(250,200,200,100);

brescircle(200,170,20);

getch();

}

void brescircle(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)

{

if(p<0)

{

x=x+1;

p=p+2\*x+1;

}

else

{

x=x+1;

y=y-1;

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);delay(10);

putpixel(xc+x,yc-y,15);delay(10);

putpixel(xc-x,yc+y,15);delay(10);

putpixel(xc-x,yc-y,15);delay(10);

putpixel(xc+y,yc+x,15);delay(10);

putpixel(xc+y,yc-x,15);delay(10);

putpixel(xc-y,yc+x,15);delay(10);

putpixel(xc-y,yc-x,15);delay(10);

}

***Output:-***

