Name:Shivam

Write C++/Java program to draw inscribed and Circumscribed circles in the triangle as shown as an example below. (Use any Circle drawing and Line drawing algorithms) .

#include<iostream>

#include<graphics.h>

using namespace std;

class br\_circle

{

private:

int x,y,r;

int x1,y1,x2,y2;

public:

void line(int x1,int y1,int x2,int y2);

void getdata();

void plot(int ,int ,int );

void display(int ,int ,int ,int );

};

void br\_circle::line(int x1,int y1,int x2,int y2)

{

int i=0,dx,dy,e;

dx=x2-x1;

dy=y2-y1;

if(dx==0 && dy==0)

{

putpixel(x1,y1,WHITE);

}

e=2\*dy-dx;

do

{

while(e>=0)

{

y1++;

e=e-2\*dx;

}

x1++;

e=e+2\*dy;

putpixel(x1,y1,WHITE);

i++;

}while(i<=dx);

}

void br\_circle::plot(int x,int y,int r)

{

float d;

int x1,y1;

x1=0;

y1=r;

d=3-2\*r;

do

{

if(d<=0)

{

d=d+(4\*x1)+6;

}

else

{

d=d+4\*(x1-y1)+10;

y1--;

}

x1++;

display(x1,y1,x,y);

}while(x1<y1);

}

void br\_circle::display(int x1,int y1,int x,int y)

{

putpixel(x1+x,y1+y,YELLOW);

putpixel(x1+x,y-y1,RED);

putpixel(x-x1,y1+y,YELLOW);

putpixel(x-x1,y-y1,RED);

putpixel(x+y1,y+x1,YELLOW);

putpixel(x+y1,y-x1,RED);

putpixel(x-y1,y+x1,YELLOW);

putpixel(x-y1,y-x1,RED);

}

int main()

{

int gd = DETECT ,gm;

initgraph(&gd ,&gm, NULL);

br\_circle b;

b.line(250,275,350,275);

line(250,275,300,200);

line(350,275,300,200);

b.plot(300,253,55);

b.plot(300,248,26);

getch();

closegraph();

return 0;

}

Output: -

