MIDPOINT CIRLCE DRAWING ALGORITHM

CODE:  
#include<stdio.h>

#include<conio.h>

#include<graphics.h>

#include<math.h>

void main()

{

int gd=DETECT,gm;

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

int r;

printf("Enter the radius of circle");

scanf("%d",&r);

int p0=1-r;

int x=0,y=r;

//putpixel(320,240,WHITE);

putpixel(x+250,y+250,WHITE);

while(x<=y)

{

if(p0<0){

x++;

y=y;

p0=p0+(2\*x)+3;

}

else {

x++;

y--;

p0=p0+(2\*x)-(2\*y)+5;

}

putpixel(x+250,y+250,WHITE);

putpixel(-x+250,y+250,WHITE);

putpixel(x+250,-y+250,WHITE);

putpixel(-x+250,-y+250,WHITE);

putpixel(y+250,x+250,WHITE);

putpixel(y+250,-x+250,WHITE);

putpixel(-y+250,x+250,WHITE);

putpixel(-y+250,-x+250,WHITE);

}

getch();

closegraph();

}

OUTPUT:

