***EXPERIMENT NO.3:- MIDPOINT CIRCLE ALGORITHM***

Program:-

#include<stdio.h>

#include<conio.h>

#include<graphics.h>

void pixel(int x,int y,int xc,int yc)

{

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

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

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

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

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

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

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

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

}

main()

{

int gd=DETECT,gm=0,r,xc,yc,x,y;

float p;

//detectgraph(&gd,&gm);

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

printf("\n Enter the radius of the circle:");

scanf("%d",&r);

printf("\n Enter the center of the circle:");

scanf("%d %d",&xc,&yc);

y=r;

x=0;

p=(5/4)-r;

while(x<y)

{

if(p<0)

{

x=x+1;

y=y;

p=p+2\*x+3;

}

else

{

x=x+1;

y=y-1;

p=p+2\*x-2\*y+5;

}

pixel(x,y,xc,yc);

}

getch();

closegraph();

}

Output:-

