Program for Circle using Midpoint Algorithm.

#include <stdio.h>

#include <conio.h>

#include <graphics.h>

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

int main(){

int gd,gm,xc,yc,x,y,r,p;

detectgraph(&gd,&gm);

initgraph(&gd,&gm,"C://TurboC3//BGI");

printf("Enter center of circle::");

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

printf("Enter radius of circle::");

scanf("%d",&r);

x=0;

y=r;

p=1-r;

pixel(xc,yc,x,y);

while(x<y)

{

if(p<0)

{

x++;

p=p+2\*x+1;

}

else

{

x++;

y--;

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

}

pixel(xc,yc,x,y);

}

getch();

closegraph();

return 0;

}

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

{

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

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

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

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

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

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

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

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

}