**2) Write a program to implement mid-point circle drawing algorithm**

#include<iostream>

#include<conio.h>

#include<graphics.h>

using namespace std;

int main()

{

int xc,yc,r,pk,x,y;

initwindow(800,800);

cout<<"Enter the center co-ordinates"<<endl;

cin>>xc>>yc;

cout<<"Enter the radius of circle"<<endl;

cin>>r;

pk = 1 - r;

x = 0;

y = r;

while(x < y)

{

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

cout<<x+xc<<","<<y+yc<<endl;

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

cout<<-x+xc<<","<<y+yc<<endl;

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

cout<<x+xc<<","<<-y+yc<<endl;

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

cout<<-x+xc<<","<<-y+yc<<endl;

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

cout<<y+xc<<","<<x+yc<<endl;

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

cout<<-y+xc<<","<<x+yc<<endl;

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

cout<<y+xc<<","<<-x+yc<<endl;

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

cout<<-y+xc<<","<<-x+yc<<endl;

++x;

if(pk < 0)

pk = pk + (2\*x) + 1;

else

{

--y;

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

}

}

getch();

closegraph();

return 0;

}

**OUTPUT:**



