```
#include <stdio.h>
#include <stdlib.h>
#include <graphics.h>

void circlef3plot(int, int, int, int);
void circlef3(int, int, int);

void circlef2plot(int xc,int yc,int x,int y);
void circlef2(int xc,int yc,int r);

void circlef1plot(int xc,int yc,int x,int y);
void circlef1(int xc,int yc,int r);

void circlearc(int xc,int yc,int r);
void circlearcplot(int xc,int yc,int x,int y);

void circleplot(int, int, int, int);
void cmp(int, int, int);

void circleplot1(int, int, int, int);
void cmp1(int, int, int);

void circleplot(int xc, int yc, int x, int y)
{
        int def=YELLOW;

        putpixel(xc+x, yc+y, def);
        putpixel(xc-x, yc+y, def);
        putpixel(xc+x, yc-y, def);
        putpixel(xc-x, yc-y, def);
        putpixel(xc+y, yc+x, def);
        putpixel(xc-y, yc+x, def);
        putpixel(xc+y, yc-x, def);
        putpixel(xc-y, yc-x, def);
}

void cmp(int xc, int yc, int r)
{
        int x=0, y=r, p=1-r;

        while(x<y)
        {
                x++;
                if(p<0)  p+=2*x+1;
                else
                {
                        y--;
                        p+=2*(x-y)+1;
                }
                circleplot(xc, yc, x, y);
        }
}

void circleplot1(int xc, int yc, int x, int y)
{
        int def=WHITE;

        putpixel(xc+x, yc+y, def);
        putpixel(xc-x, yc+y, def);
        putpixel(xc+y, yc+x, def);
        putpixel(xc-y, yc+x, def);
        putpixel(xc+y, yc-x, def);
        putpixel(xc-y, yc-x, def);
}

void cmp1(int xc, int yc, int r)
{
        int x=0, y=r, p=1-r;
        while(x<y)
```

```
        {
                x++;
                if(p<0)  p+=2*x+1;
                else
                {
                        y--;
                        p+=2*(x-y)+1;
                }
                circleplot1(xc, yc, x, y);
        }
}


void circlearcplot(int xc, int yc, int x, int y)
{
        putpixel(xc+x, yc+y, 7);
        putpixel(xc-x, yc+y, 7);
}


void circlearc(int xc, int yc, int r)
{
        int x=0, y=r, p=1-r;
        while(x < y)
        {
                x++;
                if(p<0)  p+=2*x+1;
                else
                {
                        y--;
                        p+=2*(x-y)+1;
                }
                circlearcplot(xc, yc, x, y);
        }
}

void circlef1plot(int xc, int yc, int x, int y)
{
        putpixel(xc+y, yc-x, 2);
}

void circlef1(int xc, int yc, int r)
{
        int x=0, y=r, p=1-r;
        while(x<y)
        {
                x++;
                if(p<0)  p+=2*x+1;
                else
                {
                        y--;
                        p+=2*(x-y)+1;
                }
                circlef1plot(xc, yc, x, y);
        }
}

void circlef2plot(int xc, int yc, int x, int y)
{
        putpixel(xc-y, yc-x, 2);
}

void circlef2(int xc, int yc, int r)
{
        int x=0, y=r, p=1-r;
        while(x<y)
        {
                x++;
                if(p<0)  p+=2*x+1;
```

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                else
                {
                        y--;
                        p+=2*(x-y)+1;
                }
                circlef2plot(xc, yc, x, y);
        }
}

void circlef3plot(int xc, int yc, int x, int y)
{
        putpixel(xc+x, yc-y, 2);
}

void circlef3(int xc, int yc, int r)
{
        int x=0, y=r, p=1-r;
        while(x<y)
        {
                x++;
                if(p<0)  p+=2*x+1;
                else
                {
                        y--;
                        p+=2*(x-y)+1;
                }
                circlef3plot(xc, yc, x, y);
        }
}

int main()
{
        int i, j = 0;
        initwindow(800, 600, "flower");
        cleardevice();

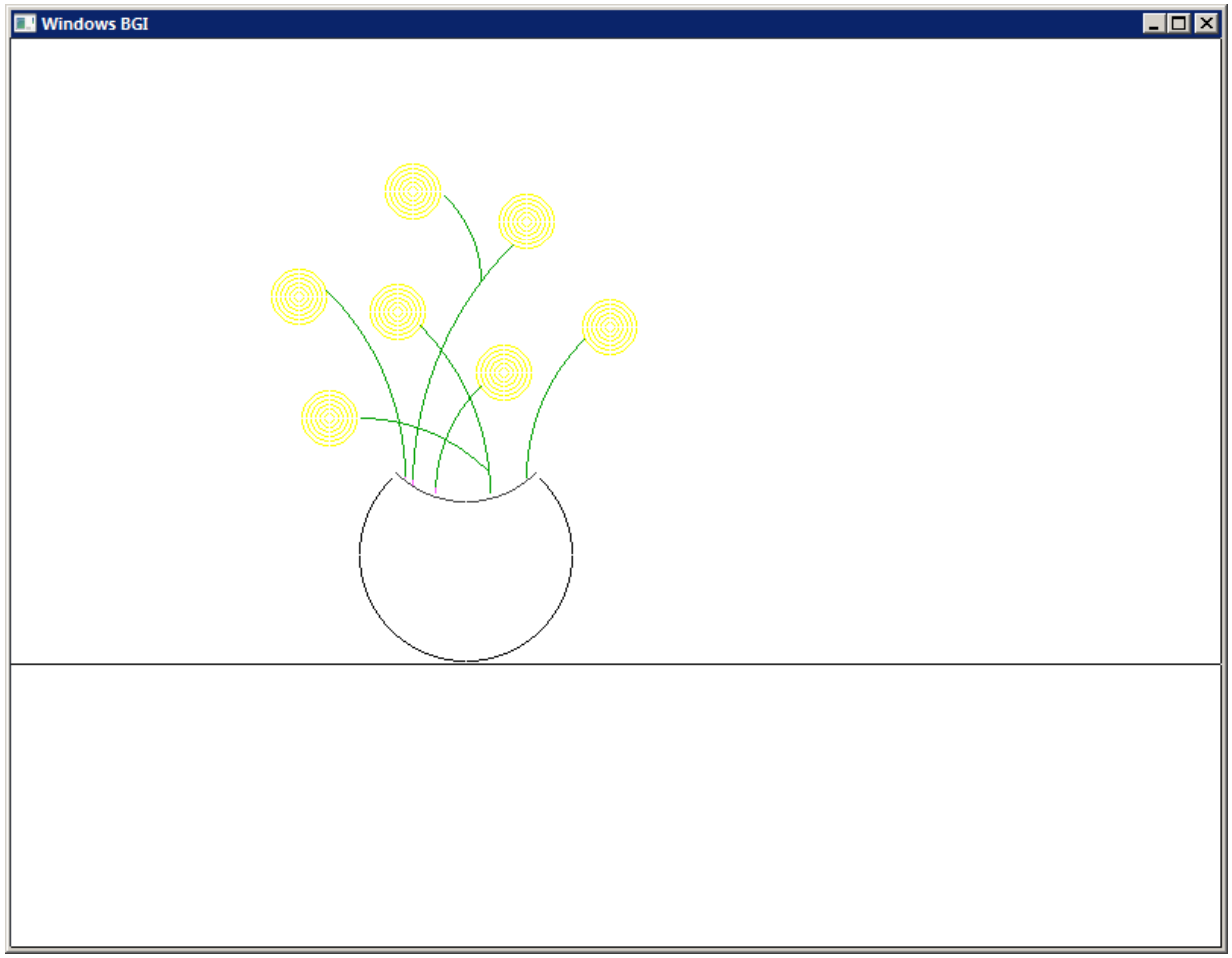
        for(i=3; i<20; i+=3)
                cmp(210, 250, i);
        for(i=3; i<20; i+=3)
                cmp(265, 100, i);
        for(i=3; i<20; i+=3)
                cmp(190, 170, i);
        for(i=3; i<20; i+=3)
                cmp(325, 220, i);
        for(i=3; i<20; i+=3)
                cmp(340, 120, i);
        for(i=3; i<20; i+=3)
                cmp(255, 180, i);
        for(i=3; i<20; i+=3)
                cmp(395, 190, i);

        cmp1(300, 340, 70);                             //pot
        line(0,412,800,412);                            //base

        circlearc(300, 240, 65);                        //pot opening

        circlef1(160, 300, 156);                        //branches
        circlef1(85, 290, 175);
        circlef2(470, 290, 130);
        circlef2(490, 295, 225);
        circlef2(380, 300, 100);
        circlef3(230, 370, 120);
        circlef1(230, 160, 80);

        while( !kbhit() )
                delay(50);
        return EXIT_SUCCESS;
}
```


Windows BGI