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#include<iostream>
#include<graphics.h>
using namespace std;

class compgraph {

public:
void dda_line(int x1,int y1,int x2,int y2);
void br_circle(int x,int y,int r);
};

void compgraph :: dda_line(int x1,int y1,int x2,int y2){
    int len,i=0;
    //int x1 = x_1,y1=y_1,x2=x_2,y2=y_2;
    float x,y,dx,dy;

    //gd = DETECT;

    //initgraph(&gd,&gm,NULL);
    if (abs(x2-x1) >= abs(y2-y1)){
        len = abs(x2-x1);
    }
    else{
        len = abs(y2-y1);
    }

    dx = (x2-x1)/len;
    dy = (y2-y1)/len;

    x = x1+0.5;
    y = y1+0.5;

    while(i<len){
        putpixel(x,y,10);
        x = x+dx;
        y = y+dy;
        i++;
    }
}

void compgraph :: br_circle(int c1,int y,int r){

```

```
//int x=0,d,y=y_,r=r_;  
int d,c=c1,x=0;
```

```
//gd = DETECT;
```

```
y=r;  
d = 3-2*r;  
//initgraph(&gd,&gm,NULL);  
do{  
    putpixel(x+c,y+c,RED);  
    putpixel(x+c,-y+c,BLUE);  
    putpixel(-x+c,y+c,YELLOW);  
    putpixel(-x+c,-y+c,GREEN);  
    putpixel(y+c,x+c,RED);  
    putpixel(y+c,-x+c,BLUE);  
    putpixel(-y+c,x+c,YELLOW);  
    putpixel(-y+c,-x+c,GREEN);
```

```
    if(d<0){  
        d = d+(4*x) + 6;  
        y=y;  
    }  
    else{  
        d = d+4*(x-y)+10;  
        y=y-1;  
    }  
    x = x+1;  
}  
while(x<y);
```

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}
```

```
int main(){
```

```
compgraph c1;
int gd,gm;
gd = DETECT;
initgraph(&gd,&gm,NULL);
c1.dda_line(100,100,100,300);
c1.dda_line(100,300,300,300);
c1.dda_line(300,300,300,100);
c1.dda_line(300,100,100,100);
c1.dda_line(100,200,200,300);
c1.dda_line(200,300,300,200);
c1.dda_line(300,200,200,100);
c1.dda_line(200,100,100,200);
c1.br_circle(200,200,70);

c1.br_circle(375,375,100);
c1.br_circle(373,373,50);
c1.dda_line(287,423,465,423);
c1.dda_line(200,275,380,300);

getch();
closegraph();

}
```