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#include<bits/stdc++.h>
#include<graphics.h>
#include<math.h>

using namespace std;
void sline(int x1,int y1,int x2,int y2){
    char topic[100];
    strcpy(topic,"Figure: An Object using
Line and Circle");
    outtextxy(120,270,topic);

    strcpy(topic,"ID: 174049");
    outtextxy(120,290,topic);

    float m,dx,dy,b;
    dx=x2-x1;
    dy=y2-y1;
    m=dy/dx;
    cout<<m<<" ";

    int xstart,ystart,xend,yend,inc1,inc2;

    if (-1*m>1 || m>1){
        if (dy<0){
            xstart=x2;
            ystart=y2;
            yend=y1;
        }
        if (dy>0){
            xstart=x1;
            ystart=y1;
            yend=y2;
        }

        inc1=2*dy;
        inc2=2*dy-2*dx;

        while(ystart<=yend)
        {
            int d=2*dy-dx;
            if(d>0)
            {
                putpixel(xstart,ystart,10);
                d=d+inc2;
                xstart--;
            }
            else

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{
    putpixel(xstart,ystart,10);
    d=d+ inc1;
}
ystart++;
}
}

if (m<=1){
    if (dx<0){
        xstart=x2;
        ystart=y2;
        xend=x1;
    }
    if (dx>0){
        xstart=x1;
        ystart=y1;
        xend=x2;
    }
    inc1=2*dy;
    inc2=2*dy-2*dx;

    while(xstart<=xend)
    {
        int d=2*dy-dx;
        if(d>0)
        {
            putpixel(xstart,ystart,10);
            d=d+inc2;
            ystart--;
        }
        else
        {
            putpixel(xstart,ystart,10);
            d=d+ inc1;
        }
        xstart++;
    }
}

void scircle(int r){
    int x=0;
    int y=r;

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int d=3-(2*r);

int xc=205;
int yc=130;

putpixel(xc+x,yc-y,7);

while (x<=y){
    putpixel(xc+x,yc-y,7);
    putpixel(xc-x,yc-y,10);
    putpixel(xc+x,yc+y,12);
    putpixel(xc-x,yc+y,15);
    putpixel(xc+y,yc-x,7);
    putpixel(xc-y,yc-x,10);
    putpixel(xc+y,yc+x,12);
    putpixel(xc-y,yc+x,15);
    x+=1;
    if (d<0){
        d+=(4*x+6);
    }
    else{
        d+=(4*(x-y)+10);
        y--;
    }
}

}
int main(){
    int Xmin,Ymin,Xmax,Ymax;
    initwindow(600,600);
    Xmax=600;
    Ymax=600;

    int x1=10,y1=10;
    int x2=400,y2=11;
    int x3=399,y3=249;
    int x4=9,y4=250;

    int r=60;
    int
cx=int((400+10)/2),cy=int((10+250)/2);

    sline(10,10,400,11);
    sline(9,250,10,10);
    sline(9,250,399,249);
    sline(399,249,400,11);

    //sline(206,10,205,130-60);

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    sline(204,130-60,206,10);
    sline(204,249,205,130+60);
    //sline(205,cy-60,205,1)
    scircle(60);
    while(!kbhit()){
        delay(100);
    }
}

```

### Result:

