```
#include<graphics.h>
#include<iostream>
#include<stdlib.h>
using namespace std;
class circle2
{
	public:
		int x,y,d,x1,y1,x2,y2,r;
};

class circle1:public circle2
{
	public:
		void br_circle(int x1,int y1,int r)
		{
			x=0,y=r;
			d=3-2*r;
			//putpixel(y1,y1,BLUE);
			while(x<=y)
			{delay(100);
				putpixel(x1+x,y1+y,10);
				putpixel(x1+y,y1+x,12);
				putpixel(x1-y,y1+x,9);
				putpixel(x1+x,y1-y,11);
				putpixel(x1-x,y1-y,4);
				putpixel(x1-y,y1-x,7);
				putpixel(x1-x,y1+y,15);
				putpixel(x1+y,y1-x,14);
				if(d<0)
				{
					d=d+4*x+6;
					x++;
				}
				else
				{
					d=d+4*(x-y)+10;
					x++;y--;
				}
			}
		}
```

```
void dda_line(int x1,int y1,int x2,int y2)
{
	float x,y,dx,dy,len;
	int i;

	dx=abs(x2-x1);

	dy=abs(y2-y1);

	if(dx>=dy)
	{
		len=dx;
	}
	else
	{
		len=dy;
	}

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

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

	i=1;

	while(i<=len)
	{
		delay(20);
		putpixel(x,y,11);
		x=x+dx;
		y=y+dy;
		i=i+1;
	}

	//putpixel(x,y,15);
}


void triangle(int x1,int y1,int r)
{
	int h,ax,bx,ay,by,cx,cy;
```

```
                        h=1.73*r;

                        ax=x1+h;
                        ay=y1+r;

                        bx=x1-h;
                        by=y1+r;

                        cx=x1;
                        cy=y1-2*r;

                        circle1 d;
                        d.dda_line(ax,ay,bx,by);
                        d.dda_line(bx,by,cx,cy);
                        d.dda_line(cx,cy,ax,ay);

                }


};

int main()
 {
        circle1 c1;
        int x1,y1,r;
        int gd=DETECT,gm;
        int xmax,ymax,xmid,ymid;

        cout<<"Enter the centre of the circle\t";
        cin>>x1>>y1;
        cout<<"Enter the radius         \t";
        cin>>r;

        initgraph(&gd,&gm,NULL);

         xmax=getmaxx();
         ymax=getmaxy();
         xmid=xmax/2;
         ymid=ymax/2;

         line(xmid,0,xmid,ymax);
         line(0,ymid,xmax,ymid);
```

```
        c1.br_circle(xmid+x1,ymid-y1,r);
        c1.br_circle(xmid+x1,ymid-y1,2*r);

        c1.triangle(xmid+x1,ymid-y1,r);


        delay(1000);
        getch();
        closegraph();
        return 0;
}


/* *************** Output **************

user@user:~$ g++ Exp1.cpp -o 1 -lgraph
user@user:~$ ./1
Enter the centre of the circle :
100
100
Enter the radius :50

*/
```