

Title:- Write a C++ program to implement bouncing ball using Sine wave form.
Apply the concept of Polymorphism.

```
#include<iostream>
#include<graphics.h>
#include<math.h>
using namespace std;
class poly
{
    public:
        float x=1,y=0.00000,j=0.5,count=0.1;
        float r=15;
        void draw(int a, int b, int c, int d)
        {
            setcolor(14);
            line(a,b,c,d);
            sleep(1);
        }
        void draw()
        {
            for(int k=0;k<=5;k++)
            {
                for(float i=90;i<270;i+=10)
                {
                    y=cos(((i*22/7)/180))/j;
                    if(y>0)
                    y=-y;
                    x+=5;
                    setcolor(14);
                    circle(x,y*100+200,r);
                    floodfill(x,y*100+200,14);
                    delay(200);
                    setcolor(0);
                    circle(x,y*100+200,r);
                    floodfill(x,y*100+200,0);
                }
                j+=count;
                //count+=1;
            }
        }
};

int main()
{
    int gd=DETECT,gm;
    initgraph(&gd,&gm,NULL);
    poly p;
    p.draw(0,215,650,215);
    p.draw();
    return 0;
}
```