```
 1: /* Angel Zheondre Calcano */
 2:
 3: #include <SFML/Graphics.hpp>
 4: #include <SFML/Window.hpp>
 5: #include <cmath>
 6: #include <iostream>
 7: #include "sierpinski.hpp"
 8:
 9: using namespace sf ;
10: using namespace std ;
11:
12: int main(int argc, char* argv[]) {
13:
14:   if( argc < 3 ) {
15:     cout << "sierpinski [recursion-depth][side-length]" << endl ;
16:     return -1 ;
17:     }
18:   int depth = atoi(argv[1]) ;
19:   int  w = atoi(argv[2]) ;
20:
21:   int l = (int)(.5*sqrt(3.)*(float)w) ;
22:
23:   sf::RenderWindow window(VideoMode(w,l), "Angel Zheondre Calcano ID# 011416
88" ) ;
24:   window.setFramerateLimit(1) ;
25:   ConvexShape polygon;
26:   polygon.setPointCount(3);
27:   polygon.setPoint(0, Vector2f(w/2,0));
28:   polygon.setPoint(1, Vector2f(0,l));
29:   polygon.setPoint(2, Vector2f(w,l));
30:   polygon.setFillColor(Color::Black);
31:   polygon.setPosition(0,0);
32:
33:   while( window.isOpen()){
34:
35:     Event event ;
36:     while( window.pollEvent(event)) {
37:       if(event.type == Event::Closed )
38:         window.close() ;
39:     }
40:
41:     window.clear(Color::Red) ;
42:     window.draw(polygon);
43:     Sierpinski( w/2, depth, w/2, l, window) ;
44:     window.display() ;
45:   }
46:
47:   return 0 ;
48: }
```