```
 1: #include <cmath>
 2: #include <SFML/Graphics.hpp>
 3: #include <SFML/Window.hpp>
 4:
 5: class Fractal : public sf::Drawable
 6: {
 7:         public:
 8:
 9:          Fractal(int n, int size_frac);
10:
11:          void fractal_rec(sf::ConvexShape fractal_shape, int recursion, sf::
RenderTarget &target) const;
12:
13:          sf::ConvexShape filledFractal(sf::Vector2f point1,sf::Vector2f poin
t2, sf::Vector2f point3, sf::Vector2f point4,sf::RenderTarget &target) const;
14:
15:          ~Fractal();
16:
17:
18:
19:
20:         private:
21:         sf::ConvexShape square;
22:
23:         int depth;
24:         int side;
25:
26:         void virtual draw(sf::RenderTarget& target, sf::RenderStates states)
 const;
27:
28: };
```