

```
1  #include "triangle.h"
2
3  using namespace std;
4
5  Triangle::Triangle(double base, double height, const Color& color): mBase(base),
mHeight(height), mColor(color) {
6
7  }
8
9  Triangle::Triangle(const Color& color): Triangle() {
10     setColor(color);
11 }
12
13 Triangle::Triangle(Color::Code code): Triangle(Color(code)) {
14
15 }
16
17 double Triangle::getHeight() const {
18     return mHeight;
19 }
20
21 double Triangle::getBase() const {
22     return mBase;
23 }
24
25 double Triangle::getSurface() const {
26     return mBase * mHeight / 2.;
27 }
28
29 Color Triangle::getColor() const {
30     return mColor;
31 }
32
33 Triangle& Triangle::setHeight(double height) {
34     mHeight = height;
35     return *this;
36 }
37
38 Triangle& Triangle::setBase(double base) {
39     mBase = base;
40     return *this;
41 }
42
43 Triangle& Triangle::setColor(const Color& color) {
44     mColor = color;
45     return *this;
46 }
47
48 Triangle& Triangle::setColor(Color::Code color) {
49     setColor(Color(color));
50     return *this;
51 }
52
53 ostream& Triangle::display(ostream& stream) const {
54     return stream << "Triangle Base: " << mBase
55         << ", Height: " << mHeight
56         << ", Color: " << mColor;
57 }
58
59 ostream& operator<<(ostream& stream, const Triangle& triangle) {
60     return triangle.display(stream);
61 }
62
```