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1  /*
2  -----
3  Laboratoire : labo_01
4  Fichier      : triangle.cpp
5  Auteur(s)   : Emmanuelle Comte et David Gallay
6  Date        : 24.02.2020
7
8  But          : Function definition for header triangle.h
9  Remarque(s) :
10 Compileur   : MinGW-g++ 6.3.0 and g++ 7.4.0
11 -----*/
12
13 #include "triangle.h"
14
15 using namespace std;
16
17 Triangle::Triangle(double base, double height, const Color& color): mBase(base),
18 mHeight(height), mColor(color) {
19 }
20
21 Triangle::Triangle(const Color& color): Triangle() {
22     setColor(color);
23 }
24
25 Triangle::Triangle(Color::Code code): Triangle(Color(code)) {
26 }
27
28
29 double Triangle::getHeight() const {
30     return mHeight;
31 }
32
33 double Triangle::getBase() const {
34     return mBase;
35 }
36
37 double Triangle::getSurface() const {
38     return mBase * mHeight / 2.;
39 }
40
41 Color Triangle::getColor() const {
42     return mColor;
43 }
44
45 Triangle& Triangle::setHeight(double height) {
46     mHeight = height;
47     return *this;
48 }
49
50 Triangle& Triangle::setBase(double base) {
51     mBase = base;
52     return *this;
53 }
54
55 Triangle& Triangle::setColor(const Color& color) {
56     mColor = color;
57     return *this;
58 }
59
60 Triangle& Triangle::setColor(Color::Code color) {
61     setColor(Color(color));
62     return *this;
63 }
64
65 ostream& Triangle::display(ostream& stream) const {
66     return stream << "Triangle Base: " << mBase
67         << ", Height: " << mHeight
68         << ", Color: " << mColor;
69 }
70

```

```
71 ostream& operator<<(ostream& stream, const Triangle& triangle) {  
72     return triangle.display(stream);  
73 }  
74
```