

```

1  #ifndef SQUARE_H
2  #define SQUARE_H
3
4  #include <iostream>
5  #include "color.h"
6
7  class Square {
8
9      public:
10
11          /**
12           * @brief Create a square with a side and a color, a side or with nothing
13           * @param side default value 0
14           * @param color default value Color()
15           */
16          Square(double side = 0, const Color& color = Color());
17
18          /**
19           * @brief Create a square with an object color
20           * @param color
21           */
22          Square(const Color& color);
23
24          /**
25           * @brief Create a square with a color code (enum)
26           * @param code
27           */
28          Square(Color::Code code);
29
30          /**
31           * @brief Get the side of the square
32           * @return The side of the square
33           */
34          double getSide() const;
35
36          /**
37           * @brief Calculate the surface of the square
38           * @return The surface of the square
39           */
40          double getSurface() const;
41
42          /**
43           * @brief Get the color of the square
44           * @return The color of the square
45           */
46          Color getColor() const;
47
48          /**
49           * @brief Change the side of the square
50           * @param side
51           * @return The square
52           */
53          Square& setSide(double side);
54
55          /**
56           * @brief Change the color of the square with an object color
57           * @param color
58           * @return The square
59           */
60          Square& setColor(const Color& color);
61
62          /**
63           * @brief Change the color of the square with a color code (enum)
64           * @param color
65           * @return The square
66           */
67          Square& setColor(Color::Code color);
68
69          /**
70           * @brief Display a square
71           * @param stream

```

```
72         * @return The stream
73         */
74         std::ostream& display(std::ostream& stream = std::cout) const;
75
76     private:
77         double mSide;
78         Color  mColor;
79 };
80
81 /**
82  * @brief Overload of the output stream to display a square
83  * @param stream
84  * @param square
85  * @return The stream
86  */
87 std::ostream& operator<<(std::ostream& stream, const Square& square);
88
89
90 #endif // SQUARE_H
91
```