Assignment Operators

With the expression `cout << 11`, the `cout` object is changed and the character pair `11` appears on the screen. Both the change to `cout` and the printing on the screen are called **side effects**. Here are some other side-effect operators.

Chained Assignment

When using the assignment operator, the **result or value** of the expression is the value that is copied. Because **assignment is right associative**, we can "chain" assignment statements together like this:

```
int x, y, z;
x = y = z = 10;       // chained assignment, which means...
x = y = (z = 10);     // right associative, which means...
x = (y = 10);
x = 10;
```

Shorthand Assignment

To **modify an existing variable**, use the **shorthand-assignment operators**:

```
x += 5;     // means x = x + 5
x -= 5;     // means x = x - 5
x *= 5;     // means x = x * 5
x /= 5;     // means x = x / 5
x %= 5;     // means x = x % 5
```