

iota()

- `iota()` takes an initial value, sets the first element to this value and the other elements to a value which increases by one for each element

```
vector<int> v(10);           // Create a vector with 10 elements
iota(v.begin(), v.end(), 1); // Assigns the elements to be 1, 2, 3, 4, ...
```

- This is equivalent to

```
int n{1};
for (auto it = v.cbegin(); it != v.cend(); ++it) {
    *it = n;
    ++n;
}
```

accumulate()

- `accumulate()` returns the sum of all the elements in an iterator range
- The third argument is the initial value of the sum. Usually this is 0

```
auto x = accumulate(v.cbegin(), v.cend(), 0); // Returns the sum of the elements
```

- This is equivalent to

```
int sum{0};  
for (auto it = v.cbegin(); it != v.cend(); ++it)  
    sum += *it;
```