

```
private:
    int theValue;    // the value to add
public:
    // constructor initializes the value to add
    AddValue(int v) : theValue(v) {
    }

    // the "function call" for the element adds the value
    void operator() (int& elem) const {
        elem += theValue;
    }
};

int main()
{
    list<int> coll;

    // insert elements from 1 to 9
    for (int i=1; i<=9; ++i) {
        coll.push_back(i);
    }

    PRINT_ELEMENTS(coll,"initialized:           ");

    // add value 10 to each element
    for_each (coll.begin(), coll.end(),    // range
              AddValue(10));              // operation

    PRINT_ELEMENTS(coll,"after adding 10:       ");

    // add value of first element to each element
    for_each (coll.begin(), coll.end(),    // range
              AddValue(*coll.begin()));    // operation

    PRINT_ELEMENTS(coll,"after adding first element: ");
}
```

After the initialization, the collection contains the values 1 to 9:

```
initialized:           1 2 3 4 5 6 7 8 9
```