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/* The following code example is taken from the book
 * "The C++ Standard Library – A Tutorial and Reference, 2nd Edition"
 * by Nicolai M. Josuttis, Addison-Wesley, 2012
 *
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 */
#include <deque>
#include <algorithm>
#include <functional>
#include <iostream>
#include "print.hpp"
using namespace std;

int main()
{
    deque<int> coll = { 1, 2, 3, 5, 7, 11, 13, 17, 19 };

    PRINT_ELEMENTS(coll, "initialized: ");

    // negate all values in coll
    transform (coll.cbegin(), coll.cend(),           // source
               coll.begin(),                          // destination
               negate<int>());                        // operation
    PRINT_ELEMENTS(coll, "negated: ");

    // square all values in coll
    transform (coll.cbegin(), coll.cend(),           // first source
               coll.cbegin(),                        // second source
               coll.begin(),                          // destination
               multiplies<int>());                   // operation
    PRINT_ELEMENTS(coll, "squared: ");
}

```