```cpp
/* The following code example is taken from the book
 * "The C++ Standard Library - A Tutorial and Reference"
 * by Nicolai M. Josuttis, Addison-Wesley, 1999
 *
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 */
#include <iostream>
#include <vector>
#include <set>
#include <algorithm>
#include "print.hpp"

int square (int value)
{
    return value*value;
}

int main()
{
    std::set<int>    coll1;
    std::vector<int> coll2;

    // insert elements from 1 to 9 into coll1
    for (int i=1; i<=9; ++i) {
        coll1.insert(i);
    }
    PRINT_ELEMENTS(coll1,"initialized: ");

    // transform each element from coll1 to coll2
    // - square transformed values
    std::transform (coll1.begin(),coll1.end(),    // source
                    std::back_inserter(coll2),    // destination
                    square);                      // operation

    PRINT_ELEMENTS(coll2,"squared:     ");
}
```