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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 <set>
#include <algorithm>
#include <iterator>
#include <iostream>
using namespace std;

int main()
{
    // unordered set with elements from 1 to 9
    set<int> coll = { 1, 2, 3, 4, 5, 6, 7, 8, 9 };

    // print all elements of the collection
    copy (coll.cbegin(), coll.cend(),
          ostream_iterator<int>(cout, " "));
    cout << endl;

    // Remove all elements with value 3
    // - algorithm remove() does not work
    // - instead member function erase() works
    int num = coll.erase(3);

    // print number of removed elements
    cout << "number of removed elements: " << num << endl;

    // print all elements of the modified collection
    copy (coll.cbegin(), coll.cend(),
          ostream_iterator<int>(cout, " "));
    cout << endl;
}

```