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/* 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 <deque>
#include <algorithm>
using namespace std;

void print (int elem)
{
    cout << elem << ' ';
}

int main()
{
    deque<int> coll;

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

    // find position of element with value 2
    deque<int>::iterator pos1;
    pos1 = find (coll.begin(), coll.end(),    // range
                2);                          // value

    // find position of element with value 7
    deque<int>::iterator pos2;
    pos2 = find (coll.begin(), coll.end(),    // range
                7);                          // value

    // print all elements in range [pos1,pos2)
    for_each (pos1, pos2,    // range
              print);        // operation
    cout << endl;

    // convert iterators to reverse iterators
    deque<int>::reverse_iterator rpos1(pos1);
    deque<int>::reverse_iterator rpos2(pos2);

    // print all elements in range [pos1,pos2) in reverse order
    for_each (rpos2, rpos1,    // range
              print);          // operation
    cout << endl;
}

```