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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 <iostream>
#include <vector>
#include <algorithm>
#include <iterator>
#include <functional>
#include "fopow.hpp"
using namespace std;
using namespace std::placeholders;

int main()
{
    vector<int> coll = { 1, 2, 3, 4, 5, 6, 7, 8, 9 };

    // print 3 raised to the power of all elements
    transform (coll.begin(), coll.end(),           // source
               ostream_iterator<float>(cout, " "), // destination
               bind(fopow<float, int>(), 3, _1));     // operation
    cout << endl;

    // print all elements raised to the power of 3
    transform (coll.begin(), coll.end(),           // source
               ostream_iterator<float>(cout, " "), // destination
               bind(fopow<float, int>(), _1, 3));    // operation
    cout << endl;
}

```