```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 "algostuff.hpp"
using namespace std;

int main()
{
    deque<int> coll;

    INSERT_ELEMENTS(coll,1,6);
    PRINT_ELEMENTS(coll);

    // print all differences between elements
    adjacent_difference (coll.begin(), coll.end(),      // source
                         ostream_iterator<int>(cout," ")); // dest.
    cout << endl;

    // print all sums with the predecessors
    adjacent_difference (coll.begin(), coll.end(),      // source
                         ostream_iterator<int>(cout," "),  // dest.
                         plus<int>());                      // operation
    cout << endl;

    // print all products between elements
    adjacent_difference (coll.begin(), coll.end(),      // source
                         ostream_iterator<int>(cout," "),  // dest.
                         multiplies<int>());                // operation
    cout << endl;
}
```