```
/* 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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 * warranty, and with no claim as to its suitability for any purpose.
 */
#include <map>
#include <iostream>
#include <algorithm>
#include <utility>
using namespace std;

int main()
{
    // map with floats as key and value
    // - initializing keys and values are automatically converted to float
    map<float,float> coll = { {1,7}, {2,4}, {3,2}, {4,3},
                              {5,6}, {6,1}, {7,3} };

    // search an element with key 3.0  (logarithmic complexity)
    auto posKey = coll.find(3.0);
    if (posKey != coll.end()) {
        cout << "key 3.0 found ("
             << posKey->first << ":"
             << posKey->second << ")" << endl;
    }

    // search an element with value 3.0 (linear complexity)
    auto posVal = find_if(coll.begin(),coll.end(),
                          [] (const pair<float,float>& elem) {
                              return elem.second == 3.0;
                          });
    if (posVal != coll.end()) {
        cout << "value 3.0 found ("
             << posVal->first << ":"
             << posVal->second << ")" << endl;
    }
}
```