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#include <algorithm>
#include <iostream>
#include <iterator>
#include <vector>
#include <cmath>

using namespace std;

int main() {

    cout << max("Hello", "world") << " is larger\n";
    cout << max(45, 51) << " is larger\n";

    cout << max("AAAA"s, "XX"s, [](const string& s1, const string& s2){
        return s1.size() < s2.size();
    }) << " is longer\n";

    cout << max({ 42, 5, 63, 14, 0, 41}) << " is larger\n";

    vector<double> d {1.3, 6.12, 0.54353, 1.000, -5.0, 0.001};

    auto it = max_element(begin(d), end(d));

    cout << *it << " is the largest\n";

    it = max_element(begin(d), end(d), [](const double& a, const double& b) {
        return abs(a) < abs(b);
    });

    cout << *it << " is the largest absolute value\n";

    return 0;
}
```