```cpp
#define _USE_MATH_DEFINES       // must be defined before any #include
#include "Vector3D.h"
#include <sstream>
#include <iomanip>
#include <cmath>

std::string Vector3D::toString() const noexcept {
    std::stringstream ss;

    // Check if it is an integer
    bool isInteger = (std::floor(x()) == x()) && (std::floor(y()) == y()) && (std::floor(w())
== w());

        // Vector a as and integer has 0 decimal places
        if (isInteger) {
            ss << std::setprecision(0);
        // Non-integer values return as 4 decimal places.
        } else {
            ss << std::fixed << std::setprecision(4);
        }

        // Format output for x and y (as default):
        ss << "[" << x() << "," << y() << ",";

        // Format output for w (by which's whole number has more than 4 digits)
        if (std::abs(w()) > 9999) {
            ss << std::setprecision(1) << w(); // If w()'s whole number has 5 digits, set
precision to 1
        } else {
            ss << w(); // Otherwise, set at default
        }
        ss << "]";

    // Return the resulting string
    return ss.str();
}
```