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#include <iostream>
#include <algorithm>
#include <iterator>
#include <random>
#include <cstdint>

using namespace std;

int main() {
    int counter = 0;

    mt19937 rng{random_device{}}();
    uniform_int_distribution<> dist(-400, 400);

    for (int i = 0; i < 100; i++){
        int v = dist(rng);
        cout <<
            counter++ << ", " <<
            v << ", " <<
            clamp(v, INT8_MIN, INT8_MAX) << ", " <<
            clamp(v, 0, UINT8_MAX) << ", " <<
            clamp(v, -30, 30) << "\n";
    }

    string s = "Hello, World! I am pleased to be here!";
    string out;

    transform(begin(s), end(s), back_inserter<string>(out), [](const char& c) {
        return clamp(c, 'd', 'o');
    });

    cout << s << "\n";
    cout << out << "\n";

    return 0;
}
```