实验课3

时间测试函数举例

```cpp
#include <chrono>
#include <iostream>
#include <iomanip>


void boo() {
    for (int i = 1; i <= 30800888; ++i) {
        int j = i * i;
    }
}

double test_1() {
    auto start = std::chrono::high_resolution_clock::now();
    // test part
    boo();

    auto end = std::chrono::high_resolution_clock::now();

    std::chrono::duration<double> diff = end - start;
    std::cout << std::fixed << std::setprecision(10) << diff.count() << std::endl;
    return diff.count();
}
```

```cpp
#include <time.h>

void boo() {
    for (int i = 1; i <= 30800888; ++i) {
        int j = i * i;
    }
}

double test_2() {
    double start = clock();
    // test part
    boo();

    double end = clock();
    double diff = (end - start) / CLOCKS_PER_SEC; // C 风格时间测量的精度为 1 毫秒
    printf("%.10f\n", diff);
    return diff;
}

```

随机数生成函数举例

```cpp
#include <iostream>
#include <stdlib.h>
#include <time.h>
using namespace std;
int main() {
    srand((unsigned)time(NULL));

    for(int i = 0; i < 10; i++ )
        cout << rand() << '\t';
    cout << endl;
    return 0;
}
```