

Tiling Problem

Let “count(n)” be the count of ways to place tiles on a “2 x n” grid, we have following two ways to place first tile.

1. If we place first tile vertically, the problem reduces to “count(n-1)”
2. If we place first tile horizontally, we have to place second tile also horizontally. So the problem reduces to “count(n-2)”

相当于是 斐波那契数列

```
#include <boost/multiprecision/cpp_int.hpp>
#include <bits/stdc++.h>

std::vector<boost::multiprecision::cpp_int> count;
void getCount(int W) {
    count.resize(W + 1);
    count[0] = count[1] = 1;
    count[2] = 2;
    for (int i = 3; i < count.size(); ++i) {
        count[i] = count[i - 1] + count[i - 2];
    }
}

// w = 1, count(1) = 1
// w = 2, count(2) = 2
// w = 3, count(3) = 3
// w = 4, count(4) = 5
int main() {
    getCount(70);
    int T;
    scanf("%d", &T);
    while (T--) {
        int W;
        scanf("%d", &W);
        std::cout << count[W] << std::endl;
    }
    return 0;
}
```