

223. Rectangle Area

题目描述: <https://leetcode.com/problems/rectangle-area/>

给定两个矩形的左下点和右上点坐标，求两个矩形一共覆盖的面积。

解题思路:

1. 两个矩形不相交，则等于两个面积之和
2. 两个矩形相交，则等于两面积之和 - 公共部分

代码:

```
class Solution {
public:
    int computeArea(int A, int B, int C, int D, int E, int F, int G, int H) {
        if (C<=E || A>=G || B>=H || D<=F )
            return abs((C-A)*(D-B))+abs((G-E)*(H-F));
        vector<int> v1;
        v1.push_back(A);v1.push_back(C);v1.push_back(E);v1.push_back(G);
        vector<int> v2;
        v2.push_back(B);v2.push_back(D);v2.push_back(F);v2.push_back(H);
        sort(v1.begin(),v1.end());
        sort(v2.begin(),v2.end());
        int l, w;
        l = v1[2]-v1[1];
        w = v2[2]-v2[1];
        return abs((C-A)*(D-B))+abs((G-E)*(H-F)) - l*w;
    }
};
```