

299. Bulls and Cows

题目描述： <https://leetcode.com/problems/bulls-and-cows/>

给定一个字符串，另一个人来猜这个字符串，返回他的正确情况

如果一个字母存在，但是位置不对则为cow

如果一个字母存在且位置对，则为bull

且传中的字符都是数字。

例如：

```
Secret number:  "1807"  
Friend's guess: "7810"
```

1 bull and 3 cows. (The bull is 8, the cows are 0, 1 and 7.)

用A代表bull，B来代表cow，返回“1A3B”

```
Secret number:  "1123"  
Friend's guess: "0111"
```

In this case, the 1st 1 in friend's guess is a bull, the 2nd or 3rd 1 is a cow, and your function should return "1A1B".

解题思路：

用哈希表记录下来每个字符分别在secret和guess中有几个，如果遇到bull则不统计该digit。

代码：

```
class Solution {
public:
    string getHint(string secret, string guess) {
        int num_s[10] = {0};
        int num_g[10] = {0};
        int bull = 0, cow = 0;
        for(int i = 0; i < secret.size(); i++){
            if(secret[i] != guess[i]){
                num_s[secret[i]-'0']++;
                num_g[guess[i]-'0']++;
            }
            if(secret[i] == guess[i]){
                bull++;
            }
        }
        for(int i = 0; i <= 9; i++){
            int num = num_s[i]>num_g[i]?num_g[i]:num_s[i];
            cow+=num;
        }
        string a;stringstream ss;ss<<bull<<"A"<<cow<<"B";
        ss>>a;
        return a;
    }
};
```