简况

比赛链接

AC 7题， Rank 9th

总结与反思

cmx

lpy

xsy

题解

A. Is Your System Safe?

B. Tiling Dominoes

C. Skating on Weiming Lake

D. Travel to Qomolangma

E. Walking Around the Country

题意:

有一个完全有向图,给定许多条有向边(会重复),求一条最短路径要求每条边至少经过一次

题解:

很像欧拉通路,不同的是不同块之间不联通,且每个点度数可能不符合要求(出度等于入度)

考虑引入结点0,作为转换结点,用于连接联通块和平衡度数

```
    Q[0].clear();
```

```
    for (int i = 1; i <= N; i++) {
      if (indeg[i] == outdeg[i]) continue;
      int cnt = abs(outdeg[i] - indeg[i]);
      if (outdeg[i] > indeg[i])
        while (cnt--) Q[0].push_back(i);
      else
        while (cnt--) Q[i].push_back(0);
    }
```

接着从0点开始寻找欧拉通路即可(注意处理无关结点——没有边相连)

```
void dfs(int u) {
  vis[u] = true;
  while (!Q[u].empty()) {
    int v = Q[u].front();
    Q[u].pop_front();
    dfs(v);
  }
  S.push(u);
}
```

by Hardict

F. A Simple Math Problem

题意:

求解$(7+4\sqrt{3})^{n}$整数部分

题解:

$(7+4\sqrt{3})^{n}=x+y\sqrt{3},(7-4\sqrt{3})^{n}=x-y\sqrt{3}$

$0<(7-4\sqrt{3})<1,0<(7-4\sqrt{3})^{n}<1 \Rightarrow x,y\sqrt{3}整数部分相差不超过过1
又x \in N^{+},[y\sqrt{3}]=x-1,[(7+4\sqrt{3})^{n}]=2x-1$

$在Z(\sqrt{3})空间上快速幂即可$

by Hardict

G. Go! Go! Go!

H. Reverse K-th Problem

I. Stairs of Tetris

J. Pairs

K. Lying Island

补题

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