

## 1. 题目

### 1115. 取石子游戏

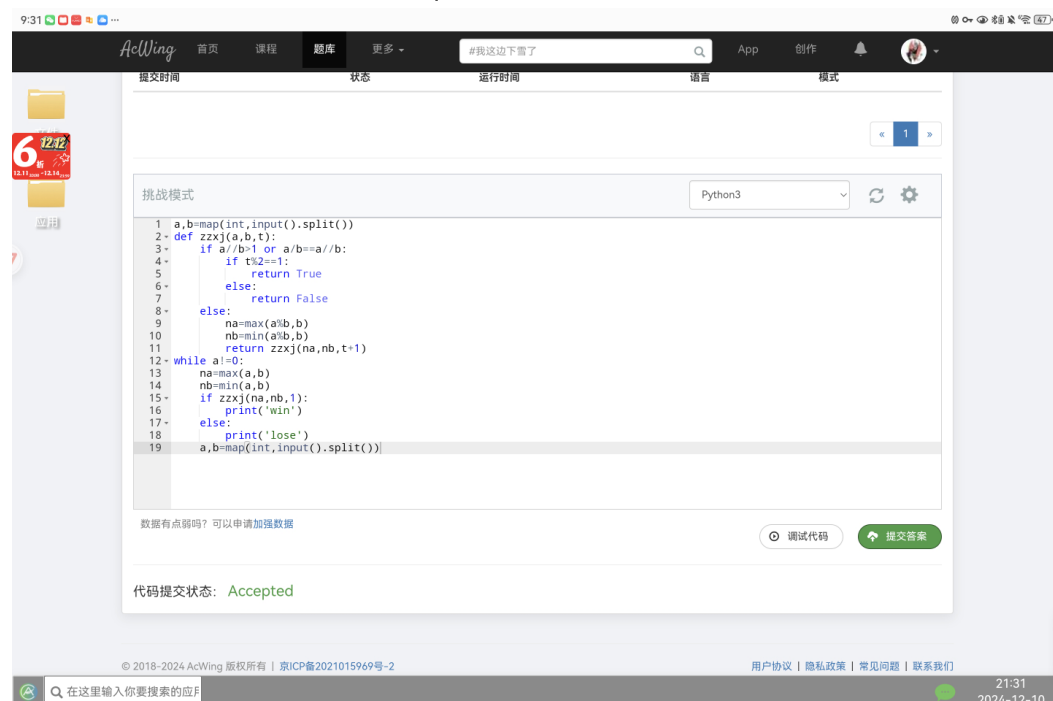
dfs, <https://www.acwing.com/problem/content/description/1117/>

思路:

代码:

```
a,b=map(int,input().split())
def zzxj(a,b,t):
    if a//b>1 or a/b==a//b:
        if t%2==1:
            return True
        else:
            return False
    else:
        na=max(a%b,b)
        nb=min(a%b,b)
        return zzxj(na,nb,t+1)
while a!=0:
    na=max(a,b)
    nb=min(a,b)
    if zzxj(na,nb,1):
        print('win')
    else:
        print('lose')
    a,b=map(int,input().split())
```

代码运行截图（至少包含有"Accepted"）



Matrices, <http://cs101.openjudge.cn/practice/25570>

代码:

代码运行截图 == (至少包含有"Accepted") ==

greedy, dp, data structures, brute force, \*1500,

<https://codeforces.com/problemset/problem/1526/C1>

思路:

代码:

```
n=int(input())
l=list(map(int,input().split()))
path=[]
dp=[[0,0]for i in range(n)]
t=0
while t<n and l[t]<0:
    t+=1
if t==n:
    print(0)
else:
    path.append(l[t])
    dp[t]=[l[t],l[t]]
    for i in range(t+1,n):
        if l[i]+dp[i-1][1]>=0:
            path.append(l[i])
            dp[i]=[min(path),dp[i-1][1]+l[i]]
        else:
            if l[i]>dp[i-1][0]:
                path.remove(dp[i-1][0])
                path.append(l[i])
                dp[i]=[min(path),dp[i-1][1]-dp[i-1][0]+l[i]]
            else:
                dp[i]=dp[i-1]
    print(len(path))
```

代码运行截图 （至少包含有"Accepted"）

#	When	Who	Problem	Lang	Verdict	Time	Memory
29590327	Dec/19/2024 23:01:11+0	XZKXZX	1526C1 - Palms (Easy Version)	Python 3	Accepted	93 ms	0 KB
29590677	Dec/19/2024 22:25:11+0	XZKXZX	1526C1 - Palms (Easy Version)	Python 3	Wrong answer on test 7	108 ms	0 KB
29590603	Dec/19/2024 22:23:11+0	XZKXZX	1526C1 - Palms (Easy Version)	Python 3	Wrong answer on test 2	61 ms	0 KB
29379390	Nov/29/2024 15:47:11+0	XZKXZX	2081C - Cube	Python 3	Wrong answer on test 1	44 ms	0 KB
29366813	Nov/27/2024 14:06:11+0	XZKXZX	6760 - Flowers	Python 3	Accepted	440 ms	8800 KB
29366512	Nov/27/2024 13:51:11+0	XZKXZX	6760 - Flowers	Python 3	Memory limit exceeded on test 31	1078 ms	262100 KB
29366492	Nov/27/2024 13:49:11+0	XZKXZX	6760 - Flowers	Python 3	Wrong answer on test 3	108 ms	6700 KB
29366381	Nov/27/2024 13:39:11+0	XZKXZX	6760 - Flowers	Python 3	Time limit exceeded on test 3	1500 ms	3300 KB
29366325	Nov/27/2024 13:34:11+0	XZKXZX	6760 - Flowers	Python 3	Time limit exceeded on test 3	1500 ms	3300 KB
29366271	Nov/27/2024 13:30:11+0	XZKXZX	6760 - Flowers	Python 3	Runtime error on test 2	61 ms	0 KB
29162660	Nov/14/2024 13:36:11+0	XZKXZX	655A - Random	Python 3	Accepted	202 ms	13000 KB
29162656	Nov/14/2024 13:32:11+0	XZKXZX	655A - Random	Python 3	Runtime error on test 43	233 ms	12900 KB
28995279	Nov/01/2024 14:19:11+0	XZKXZX	388A - Cat Ribbon	Python 3	Accepted	77 ms	0 KB
28995028	Nov/01/2024 14:12:11+0	XZKXZX	388A - Cat Ribbon	Python 3	Wrong answer on test 10	77 ms	0 KB
28995061	Nov/01/2024 14:11:11+0	XZKXZX	388A - Cat Ribbon	Python 3	Wrong answer on test 1	77 ms	0 KB
28995062	Nov/01/2024 14:08:11+0	XZKXZX	388A - Cat Ribbon	Python 3	Runtime error on test 13	93 ms	0 KB
28995061	Nov/01/2024 14:06:11+0	XZKXZX	388A - Cat Ribbon	Python 3	Runtime error on test 1	44 ms	0 KB
28866630	Oct/29/2024 16:53:11+0	XZKXZX	388A - Cat Ribbon	Python 3	Runtime error on test 5	62 ms	500 KB

22067: 快速堆猪

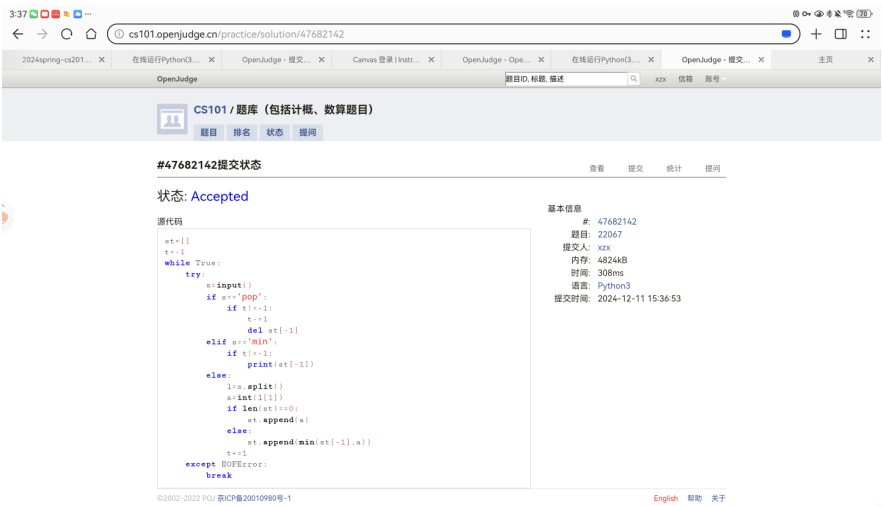
辅助栈，<http://cs101.openjudge.cn/practice/22067/>

思路：

代码：

```
st=[]
t=-1
while True:
    try:
        s=input()
        if s=='pop':
            if t!=-1:
                t-=1
                del st[-1]
            elif s=='min':
                if t!=-1:
                    print(st[-1])
            else:
                l=s.split()
                a=int(l[1])
                if len(st)==0:
                    st.append(a)
                else:
                    st.append(min(st[-1],a))
                t+=1
    except EOFError:
        break
```

代码运行截图 （至少包含有"Accepted"）



20106: 走山路

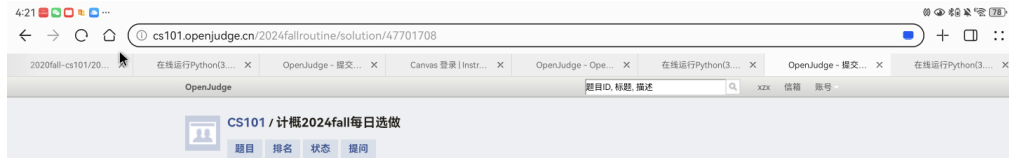
Dijkstra, <http://cs101.openjudge.cn/practice/20106/>

思路:

代码:

```
import heapq
m,n,p=map(int,input().split())
l=[]
step=[[0,1],[0,-1],[1,0],[-1,0]]
for i in range(m):
    l.append(input().split())
for i in range(p):
    dis=-1
    nl=[[k for k in l[j]]for j in range(m)]
    stx,sty,edx,edy=map(int,input().split())
    if nl[stx][sty]!='#' or nl[edx][edy]!='#':
        print('NO')
        continue
    queue=[(0,stx,sty)]
    while len(queue)>0:
        s,x,y=heapq.heappop(queue)
        if nl[x][y]=='-1':
            continue
        if x==edx and y==edy:
            dis=s
            break
        for k in step:
            nx=x+k[0]
            ny=y+k[1]
            if 0<=nx<m and 0<=ny<n and nl[nx][ny]!='-1' and nl[nx][ny]!='#':
                ns=s+abs(int(nl[nx][ny])-int(nl[x][y]))
                if ns<=dis or dis==-1:
                    heapq.heappush(queue,(ns,nx,ny))
        nl[x][y]='-1'
    if dis==-1:
        print('NO')
    else:
        print(dis)
```

代码运行截图 （至少包含有"Accepted"）



#47701708提交状态

查看 提交 统计 提问

状态: Accepted

源代码

```
import heapq
n,n,p=map(int,input().split())
l=[]
step=[[0,1],[0,-1],[1,0],[-1,0]]
for i in range(m):
    l.append(input().split())
for i in range(p):
    dis=-1
    nl=[[k for k in l[j]]for j in range(m)]
    stx,sty,edx,edy=map(int,input().split())
    if nl[stx][sty]!='#' or nl[edx][edy]!='#':
        print('NO')
        continue
    queue=[(0,stx,sty)]
    while len(queue)>0:
        x,y=heapq.heappop(queue)
        if nl[x][y]!='-1':
            continue
        if x==edx and y==edy:
            dis=x
            break
        for k in step:
            nx=x+k[0]
            ny=y+k[1]
            if 0<=nx<m and 0<=ny<n and nl[nx][ny]!='-1' and nl[nx][ny]!=n-s+abs(int(nl[nx][ny])-int(nl[x][y])):
                if nx<dis or dis==dis-1:
                    heapq.heappush(queue,(nx,nx,ny))
            nl[x][y]='-1'
        if dis==dis:
            print('NO')
            break
```

基本信息

#: 47701708  
题目: 20106  
提交人: xzx  
内存: 3720kB  
时间: 262ms  
语言: Python3  
提交时间: 2024-12-12 16:21:02

04129: 变换的迷宫

bfs, <http://cs101.openjudge.cn/practice/04129/>

思路:

代码:

step=[[1,0],[0,1],[-1,0],[0,-1]]

n=int(input())

for q in range(n):

mt=0

r,c,k=map(int,input().split())

l=[]

for i in range(r):

a=input()

la=[]

for j in range(c):

la.append(a[j])

if a[j]=='S':

stx=i

sty=j

elif a[j]=='E':

edx=i

edy=j

l.append(la)

visit={(0,stx,sty)}

que=[[0,stx,sty]]

while que:

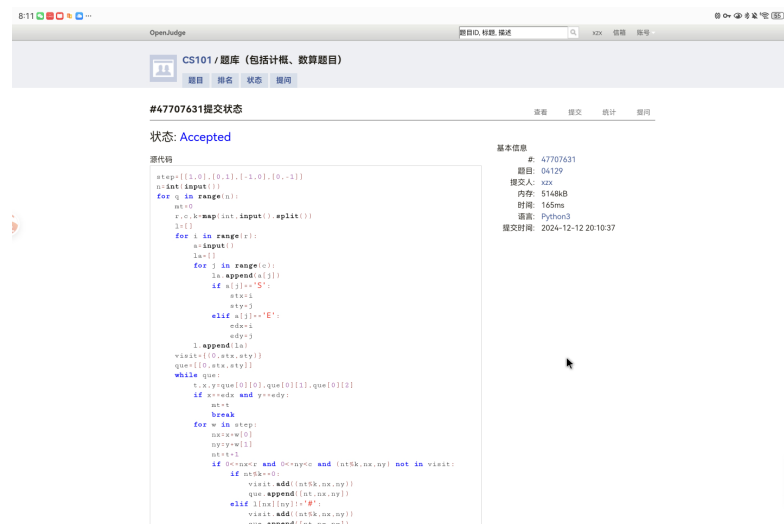
```

t,x,y=que[0][0],que[0][1],que[0][2]
if x==edx and y==edy:
    mt=t
    break
for w in step:
    nx=x+w[0]
    ny=y+w[1]
    nt=t+1
    if 0<=nx<r and 0<=ny<c and (nt%k,nx,ny) not in visit:
        if nt%k==0:
            visit.add((nt%k,nx,ny))
            que.append([nt,nx,ny])
        elif l[nx][ny]!='#':
            visit.add((nt%k,nx,ny))
            que.append([nt,nx,ny])

del que[0]
if mt==0:
    print('Oops!')
else:
    print(mt)

```

代码运行截图（至少包含有"Accepted"）



## 2. 学习总结和收获

这次题目难度不小，但在做题过程中学到了新算法和思路，收获颇丰。

如果作业题目简单，有否额外练习题目，比如：OJ“计概 2024fall 每日选做”、CF、LeetCode、洛谷等网站题目。

日常跟进 OJ 选做