1. 题目

sy119: 汉诺塔

recursion, https://sunnywhy.com/sfbj/4/3/119
代码：

```
def moveHanoi(n, from_rod, to_rod, mid_rod):
    if n == 0:
        return
    moveHanoi(n - 1, from_rod, mid_rod, to_rod)
    print(f"{from_rod}->{to_rod}")
    moveHanoi(n - 1, mid_rod, to_rod, from_rod)

n = int(input())
print(2**n - 1)
moveHanoi(n, 'A', 'C', 'B')
```

代码运行截图 （至少包含有"Accepted"）

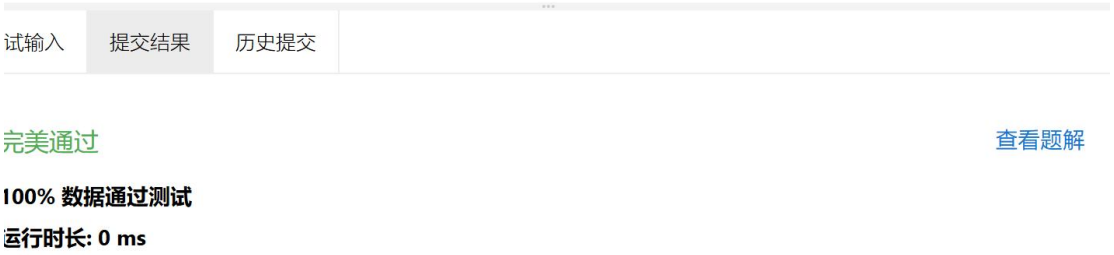
sy132: 全排列 I

recursion, https://sunnywhy.com/sfbj/4/3/132
代码：

```
def dfs(idx, n, used, temp, result):
    if idx == n + 1:
        result.append(temp[:])
        return

    for i in range(1, n + 1):
        if not used[i]:
            temp.append(i)
            used[i] = True
            dfs(idx + 1, n, used, temp, result)
            used[i] = False
            temp.pop()

def generate_permutations(n):
```

```
    result = []
    used = [False] * (n + 1)
    dfs(1, n, used, [], result)

    for perm in result:
        print(" ".join(map(str, perm)))

n = int(input())
generate_permutations(n)
```

代码运行截图 ==（至少包含有"Accepted"）==



02945: 拦截导弹

dp, http://cs101.openjudge.cn/2024fallroutine/02945

代码：

```
def max_intercepted_missiles(k, heights):
    # Initialize the dp array
    dp = [1] * k

    # Fill the dp array
    for i in range(1, k):
        for j in range(i):
            if heights[i] <= heights[j]:
                dp[i] = max(dp[i], dp[j] + 1)

    return max(dp)

if __name__ == "__main__":

    k = int(input())
    heights = list(map(int, input().split()))

    result = max_intercepted_missiles(k, heights)
```

print(result)

代码运行截图 （至少包含有"Accepted"）

状态: Accepted

源代码

```
def max_intercepted_missiles(k, heights):
    # Initialize the dp array
    dp = [1] * k

    # Fill the dp array
    for i in range(1, k):
```

基本信息

#: 46975999
题目: 02945
提交人: misty
内存: 3636kB
时间: 25ms
语言: Python3
提交时间: 2024-11-05 20:11:30

23421: 小偷背包

dp, http://cs101.openjudge.cn/practice/23421

代码：

```
N,B = map(int, input().split())*p, = map(int, input().split())*w, = map(int, input().split())

dp=[0]*(B+1)for i in range(N):
    for j in range(B, w[i] - 1, -1):
        dp[j] = max(dp[j], dp[j-w[i]]+p[i])
            print(dp[-1])
```

代码运行截图 （至少包含有"Accepted"）

状态: Accepted

源代码

```
N,B = map(int, input().split())
*p, = map(int, input().split())
*w, = map(int, input().split())

dp=[0]*(B+1)
for i in range(N):
    for j in range(B, w[i] - 1, -1):
```

基本信息

#: 46976132
题目: 23421
提交人: misty
内存: 3580kB
时间: 25ms
语言: Python3
提交时间: 2024-11-05 20:15:34

02754: 八皇后

dfs and similar, http://cs101.openjudge.cn/practice/02754

代码：

```
list1 = []
def queen(s):
    if len(s) == 8:
        list1.append(s)
        return
    for i in range(1, 9):
        if all(str(i) != s[j] and abs(len(s) - j) != abs(i - int(s[j])) for j in range(len(s))):
            queen(s + str(i))
queen('')samples = int(input())for k in range(samples):
    print(list1[int(input()) - 1])
```

代码运行截图 （至少包含有"Accepted"）

状态：Accepted

源代码

```
list1 = []

def queen(s):
    if len(s) == 8:
        list1.append(s)
        return
    for i in range(1, 9):
```

基本信息

#：46976231
题目：02754
提交人：misty
内存：3632kB
时间：54ms
语言：Python3
提交时间：2024-11-05 20:18:42

189A. Cut Ribbon

brute force, dp 1300 https://codeforces.com/problemset/problem/189/A

代码：

```
n, a, b, c = map(int, input().split())dp = [0]+[float('-inf')]*n
for i in range(1, n+1):
    for j in (a, b, c):
        if i >= j:
            dp[i] = max(dp[i-j] + 1, dp[i])
print(dp[n])
```

代码运行截图 （至少包含有"Accepted"）

General

#	Author	Problem	Lang	Verdict	Time	Memory	Sent	Judged		
290068576	Practice: mistyshen	189A - 39	Python 3	Accepted	77 ms	16 KB	2024-11-05 15:21:53	2024-11-05 15:21:53		Compare

2. 学习总结和收获

1. 期中考完再学 DP
2. 往期每日练习还有一部分没有做
3. 看老师上课时的讲义，再结合网上搜索的资料和 ai 基本可以完成自学，但是对于零基础开始的我来说时间紧是比较大的问题。