DP-S004 (E004)

Solved Challenges 1/3

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Stair Climbing - Damaged Stairs

ID:10534 **Solved By 596 Users**

There are **N** stairs to be climbed in a building. A robot can take only **S** different leaps each containing certain distinct steps which are passed as the input. But **T** stairs are damaged and hence the robot cannot land on those stairs. The damaged stair numbers are passed as the input. The program must print the number of way **C** of steps the robot can take to climb N stairs.

Boundary Condition(s):
1 <= N <= 50
1 <= S <= 10
1 <= T <= N

Input Format:
The first line contains N, S and T separated by a space.
The second line contains S integer values separated by a space.
The third line contains T integer values separated by a space.

Output Format:
The first line contains the C or -1.

Example Input/Output 1:
Input:
5 2 1
2 3
2

Output:
1

Explanation:
There are 5 steps. The robot can take 2 or 3 steps at a time.
So the possible way is
3 2
(2 3 is not possible as step 2 is damaged.)

Example Input/Output 2:
Input:
10 2 3
2 3
2 4 6

Output:
2

Explanation:
The possible ways are
3 5 7 10
3 5 8 10

Max Execution Time Limit: 400 millisecs

Ambiance

Python3 (3.x)

Reset

```
_ = list(map(int, input().strip().split()))
n = _[0]
leaps_count = _[1]
t = _[2]

leaps = list(map(int, input().strip().split()))
damaged = list(map(int, input().strip().split()))
ways = [0]*(n+1)
ways[0] = 1

for step in range(1,n+1):
    if(step in damaged):
        continue
    for index in range(0, leaps_count):
        if(step>=leaps[index]):
            ways[step]+=ways[step-leaps[index]]

print(ways[n])

```

Code did not pass the execution

TestCase ID: 57181

Input:

```
5 2 1
2 3
2
```

Expected Output:

```
1
```

Your Program Output:

```
Traceback (most recent call last):
  File "Hello.py", line 16, in
    ways[step]+=ways[step-leaps[index]]
IndexError: list index out of range
```

Save Run

Run with a custom test case (Input/Output)