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1 =====Input=====
2 solver = Solution()
3 d = [6, 1, 9, 8]
4 f = [5, 6, 9, 8]
5 print solver.prob6_3(d,f)
6
7 =====Output=====
8 False
9
10 =====Python code (generates random input) =====
11 import sets
12 import random
13 class Solution(object):
14     def prob6_3(self,d,f):
15         N = len(d)
16         s= [d[k] - f[k] for k in range(N)]
17         SS = sum(s)
18         Memo = [[ [] for i in range(N)] for j in range(N)]
19         #diag base case
20         for i in range(N):
21             Memo[i][i].append(sum(s[0:i+1]))
22         #vertical base case
23         for i in range(N):
24             Memo[i][0] = list(set(s[0:i+1]))
25
26         for i in range(2,N):
27             for j in range(1,i):
28                 temp = [x + s[i] for x in Memo[i-1][j-1]]
29                 Memo[i][j] = list(set(Memo[i-1][j]+temp))
30         for ele in Memo[N-1][N/2-1]:
31             if ele < SS and ele > 0:
32                 return True
33         return False
34 solver = Solution()
35 n = 4
36 maxn = 10
37 d= random.sample(range(1,maxn), n)
38 f = random.sample(range(1,maxn), n)
39 print d,f
40 print solver.prob6_3(d,f)
```