1. Python Program for Coin Change

def count(S, m, n):  
   table = [[0 for x in range(m)] for x in range(n+1)]  
   for i in range(m):  
      table[0][i] = 1  
   for i in range(1, n+1):  
      for j in range(m):  
         x = table[i - S[j]][j] if i-S[j] >= 0 else 0  
         y = table[i][j-1] if j >= 1 else 0  
         table[i][j] = x + y  
   return table[n][m-1]  
# main  
arr = [1, 3, 2, 4]  
m = len(arr)  
n = 5  
print('Number of coins:',count(arr, m, n))

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