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In [19]: import sys
def dynamic_coin_weight(coins,w):
    count = [0]*(w+1)
    for i in range(1,w+1):
        count[i]=sys.maxsize
    count[0] = 0
    for i in range(1,w+1):
        for j in range(len(coins)):
            if coins[j]<=i:
                sub_prob = count[i-coins[j]]
                if sub_prob!=sys.maxsize and count[i]>sub_prob + 1:
                    count[i] = sub_prob + 1

    return count[w]
print(dynamic_coin_weight([1,5,10,25,50,100],42))
print(dynamic_coin_weight([1,5,10,25,50,100],1728))
print(dynamic_coin_weight([1, 8, 20, 30, 80, 200],42))
print(dynamic_coin_weight([1, 8, 20, 30, 80, 200],1728))
```

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5
21
4
12
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In []: