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In [13]: def greedy_coins_weight(coins, w):
    coins.sort()
    coins = coins[::-1]
    print(coins)
    length = len(coins)
    i = 0
    count = 0
    d = {}
    while w:
        if w >= coins[i]:
            w = w - coins[i]
            d[coins[i]] = d.get(coins[i], 0) + 1
            count += 1
        else:
            i += 1
    return d, count
denominations, count = greedy_coins_weight([1, 5, 10, 25, 50, 100], 42)
print(denominations, count)

denominations, count = greedy_coins_weight([1, 5, 10, 25, 50, 100], 1728)
print(denominations, count)

denominations, count = greedy_coins_weight([1, 8, 20, 30, 80, 200], 42)
print(denominations, count)
denominations, count = greedy_coins_weight([1, 8, 20, 30, 80, 200], 1728)
print(denominations, count)

[100, 50, 25, 10, 5, 1]
{25: 1, 10: 1, 5: 1, 1: 2} 5
[100, 50, 25, 10, 5, 1]
{100: 17, 25: 1, 1: 3} 21
[200, 80, 30, 20, 8, 1]
{30: 1, 8: 1, 1: 4} 6
[200, 80, 30, 20, 8, 1]
{200: 8, 80: 1, 30: 1, 8: 2, 1: 2} 14

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In []: