

322. Coin Change

Difficulty : Medium

<https://leetcode.com/problems/coin-change>

You are given an integer array `coins` representing coins of different denominations and an integer `amount` representing a total amount of money.

Return *the fewest number of coins that you need to make up that amount*. If that amount of money cannot be made up by any combination of the coins, return -1.

You may assume that you have an infinite number of each kind of coin.

Example 1:

Input: `coins = [1,2,5]`, `amount = 11`

Output: 3

Explanation: 11 = 5 + 5 + 1

Example 2:

Input: `coins = [2]`, `amount = 3`

Output: -1

Example 3:

Input: `coins = [1]`, `amount = 0`

Output: 0

Constraints:

- $1 \leq \text{coins.length} \leq 12$
- $1 \leq \text{coins}[i] \leq 2^{31} - 1$
- $0 \leq \text{amount} \leq 10^4$