

Number of Coins

Given a value **V** and array **coins[]** of size **M**, the task is to make the change for **V** cents, given that you have an infinite supply of each of coins{coins₁, coins₂, ..., coins_m} valued coins. Find the minimum number of coins to make the change. If not possible to make change then return -1.

Example 1:

Input: V = 30, M = 3, coins[] = {25, 10, 5}

Output: 2

Explanation: Use one 25 cent coin
and one 5 cent coin

Example 2:

Input: V = 11, M = 4, coins[] = {9, 6, 5, 1}

Output: 2

Explanation: Use one 6 cent coin
and one 5 cent coin

Your Task:

You don't need to read input or print anything. Complete the function `minCoins()` which takes **V**, **M** and array **coins** as input parameters and returns the answer.

Expected Time Complexity: $O(V \cdot M)$

Expected Auxiliary Space: $O(V)$

Constraints:

$$1 \leq V \cdot M \leq 10^6$$

All array elements are distinct