Subset Sum

ZPRAC-16-17-Lab10

[40 points]

A subset of an array is simply a subset of its elements. For example, given the array {1,2,3}: {1}, {2}, {3}, {1,2}, {2,3}, {1,3} and {1,2,3} are the subsets of the array.

Given an array and an integer S, your task is to find out how many subsets of the array exists with this particular sum.

INPUT FORMAT:

N S --- N is the size of the array, S is the required sum
(N integers) --- elements of the array

OUTPUT FORMAT:

X --- number of subsets with given sum

EXAMPLE:

INPUT:
3 3
1 2 3

OUTPUT:
2

Explanation: The subsets of {1,2,3} and their sums are:
{1} - 1
{2} - 2
{3} - 3
{1,2} - 3
{1,3} - 4
{2,3} - 5
{1,2,3} - 6

Among these two have sum as 3 therefore answer is 2