You are given an integer mass, which represents the original mass of a planet. You are further given an integer array asteroids, where asteroids[i] is the mass of the ith asteroid.

You can arrange for the planet to collide with the asteroids in **any arbitrary order**. If the mass of the planet is **greater than or equal to** the mass of the asteroid, the asteroid is **destroyed** and the planet **gains** the mass of the asteroid. Otherwise, the planet is destroyed.

Return true*if****all****asteroids can be destroyed. Otherwise, return*false*.*

**Example 1:**

**Input:** mass = 10, asteroids = [3,9,19,5,21]

**Output:** true

**Explanation:** One way to order the asteroids is [9,19,5,3,21]:

- The planet collides with the asteroid with a mass of 9. New planet mass: 10 + 9 = 19

- The planet collides with the asteroid with a mass of 19. New planet mass: 19 + 19 = 38

- The planet collides with the asteroid with a mass of 5. New planet mass: 38 + 5 = 43

- The planet collides with the asteroid with a mass of 3. New planet mass: 43 + 3 = 46

- The planet collides with the asteroid with a mass of 21. New planet mass: 46 + 21 = 67

All asteroids are destroyed.

**Example 2:**

**Input:** mass = 5, asteroids = [4,9,23,4]

**Output:** false

**Explanation:**

The planet cannot ever gain enough mass to destroy the asteroid with a mass of 23.

After the planet destroys the other asteroids, it will have a mass of 5 + 4 + 9 + 4 = 22.

This is less than 23, so a collision would not destroy the last asteroid.

**Constraints:**

* 1 <= mass <= 105
* 1 <= asteroids.length <= 105
* 1 <= asteroids[i] <= 105