

Installation of a Shopee Billboard

Max. score: 100

This problem is no longer available for practice. Apology for any inconvenience!

You are installing a billboard and want it to be at the maximum height. The billboard will have two steel supports, one on each side. The height of each steel bracket must be equal.

You have a number of rebar rods that can be welded together. For example, if the bars are of length 1 , 2 , and 3 , they can be welded together to form a length of 6 brackets.

Return the maximum possible installation height of the billboard. Return 0 if the billboard cannot be installed.

$0 \leq rods.length \leq 20$

$1 \leq rods[i] \leq 1000$

The sum of the lengths of the bars can be up to 5000

SAMPLE INPUT

4
1 2 3 6

SAMPLE OUTPUT

6

Explanation

input: $[1, 2, 3, 6]$

output : 6

Explanation : We have two disjoint subsets $\{1, 2, 3\}$ and $\{6\}$ with the same sum

$sum = 6$.

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Score is assigned when all the testcases pass.
Allowed Languages:	Bash, C, C++, C++14, C++17, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, Java 14, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Python 3.8, Racket, Ruby, Rust, Scala, Swift-4.1, Swift, TypeScript, Visual Basic