

Heavy rainfall brought down the bridge on the stream. Some residents wish to across the stream. There is only one boat that can carry two people at a time. Therefore, one of the people who crossed the stream must return back to the starting place.

The people have a different rowing speed respectively. The speed of boat is determined by the speed of the slower person.



You decide the best way how to cross the stream in the minimum time.

Input

The input contains a line which is a set of crossing time (*min.*) of each person. The numbers separated by a space. The number of people cannot exceed 100. The maximum time it takes to cross the stream is up to 100 minutes.

Output

There are many combinations of crossing orders. The output must report the total number of minutes required for all N people to cross the stream.

Note that you need to execute a variety of test cases increasing the number of people.

Sample Input

1 5 2

Sample Output

8