Problem 13: Warner Bros ads

Statement

Warner Bros broadcasting group owns many channels, the group got hold of n commercials for the next Harry Potter movie and each one of them generates some revenue k (the commercial revenue is the same no matter what channel it is aired on).

It is to be noted that the group's advertisement policy has 2 major rules:

- It's prohibited to run an ad on multiple channels.

- The commercial revenue must be balanced between the channels (the gap between the total ad revenues of the channels must be as small as possible).

The marketing department asked for your help to assign the ads to the channels according to the group's advertisement policy.

Input

first line: an integer m which is the number of channels.

second line: a sequence of n commercials revenue.

Output

N groups, each one contains the set of ads to be aired on that channel.

Example

Input	Output
2 4 3 2 5	[5 2][4 3]

Explanation:

If the broadcasting group owns 2 channels and 4 ads with the revenue of {4 3 2 5}, then the ads must be split across the channels as follows : {5 2} for channel 1, {4 3} for channel 2.