

Test Task

Junior Python developer

Task : Necessary Coins

Input file: stdin

Output file: stdout

Time limit: 1 second

Memory limit: 256 megabytes

Vasya has been on vacation on Mars. He's a big fan of foreign coins, and thus has collected exactly one martian coin of each denomination, for a total of n coins: a_1 martian dollars, a_2 martian dollars, etc, a_n martian dollars. Unfortunately, he couldn't stand ordering the Pan Galactic Gargle Blaster at the Starport, and has to pay for it — it costs x martian dollars. Vasya is wondering which of his coins are absolutely necessary to do so (i.e., he is forced to abandon them). They don't offer change at the Starport Mars.

Input

The input file contains two integer numbers n and x ($1 \leq n \leq 200$, $1 \leq x \leq 10^4$), followed by n distinct integer numbers a_i ($1 \leq a_i \leq x$).

Output

On the first line of output, print the amount of denominations of coins that appear in any subset that sums to x martian dollars. On the second line of output, print the denominations themselves, in any order, separated with single spaces. It is guaranteed that there exists at least one way to pay x martian dollars with the given coins.

Example

stdin	stdout
5 18	2
1 2 3 5 10	5 10

*The result of your work is only needed to test knowledge and skills and will not be used for other purposes.

** Thank you again for your interest in our company and good luck with your test!

We really hope you find it interesting!