

Do you like to solve crosswords? If you do, you probably know the traditional lead-in for beginners – small 3 by 3 crosswords, like the following¹:

1	2	3
2		
3		

Horizontal:

1. device used to cool a PC
2. solid water
3. to obtain

Vertical:

1. small, soft, sweet fruit
2. strong playing card
3. fisherman's tool

Solve a crossword like this one! Not gonna happen? Fine, then at least put it together given six words that appear in it (**three as horizontal** and **three as vertical**).

INPUT

Each of the six lines of input contains a word consisting of three uppercase English letters. The words are given in a lexicographically sorted order.

OUTPUT

If it is impossible to put together a 3 by 3 crossword using the given six words, output 0.

Otherwise, output the crossword in three lines.

If there is more than one possible solution, output the one that is first in lexicographic order, where, for sorting purposes, the crossword is viewed as a nine-letter word obtained by concatenating its rows.

SAMPLE TESTS

input ANA ANA DAR DAR RAD RAD	input EVO HEP HIR IVA PAD ROD	input AKO CES DOC DON ESI KES
output DAR ANA RAD	output HEP IVA ROD	output 0

¹ adapted from <http://www.goobix.com/crosswords/0303/>