1. Write a program that performs compression of the input array. The program loads an array of natural numbers (loading ends when a number of -1 is loaded – ignore -1) which represents the sequence to be compressed. The maximum input array size is 100 numbers. The array is compressed to the following way: the sequence of repeating the same number inside the array is replaced by a pair of numbers of which the first represents number, and the second is the count of repeating that number.   
   Ex: for input sequence 1 1 2 5 5 5 5 1 1 1 -1,   
   output (compressed sequence) is as follows: 1 2 2 1 5 4 1 3.   
     
   The loaded sequence is compressed as it is written in a new field. It is necessary to print a new field
2. Write a program that loads an array of natural numbers (maximum size 50) and stores it in a one-dimensional array. Loading ends when user types number -1, being neglected. The loaded array should be copied to a new array, but with a reversed order of elements. The program should print so obtained field.

Eg. if the input string is 2 -3 5 7, the output string is 7 5 -3 2.

1. Write a program that will load two character sets and print the letters that are found both in one and the other. Assume that the strings contain only capital letters. Each common letter should be printed only once.
2. Write a program that loads the natural number n representing the rank of square matrix, and then the entire array of elements. The program needs to perform transposing the loaded matrix and print the result.