

Program:

1. Input a non-empty array of positive integers, and data entry should be terminated when a negative number is entered. The negative number won't be read into the array and the length of the array is no bigger than 100. You need to find out and print the second maximum number in this array. If it does not exist in the array, just print -1. The following are two examples.

Example 1:

Input: 3 2 1 -1

Output: 2

Explanation: The second maximum is 2.

Example 2:

Input: 1 1 -1

Output: -1

Explanation: The second maximum does not exist, so return -1.

2. Input a non-empty array of positive integers, and the length of the array is 7. Then input a number named m in the next new line. M should be greater than or equal to zero. You need to rotate the array to the left by m. Then print the new rotated array. Here is an example.

Example:

Input:

1 2 3 4 5 6 7

3

Output: 4 5 6 7 1 2 3

Explanation:

rotate 1 step to the left: [2,3,4,5,6,7,1]

rotate 2 steps to the left: [3,4,5,6,7,1,2]

rotate 3 steps to the left: [4,5,6,7,1,2,3]

3. Input two positive integers named r and c. r and c are no bigger than ten. Then input a matrix with r rows and c columns. You need to find out all elements which are zero and we call them 'zero point'. Then change the other elements to zero which are in the same column or in the same row with 'zero point'. Print the new matrix row by row.

Example:

0	3	4	0
1	2	3	4
8	8	8	8



0	0	0	0
0	2	3	0
0	8	8	0

Input: 3 4

0 3 4 0

1 2 3 4

8 8 8 8

Output: 0 0 0 0

0 2 3 0

0 8 8 0

Vector!

4. Read a set of non-empty positive integers from the keyboard into a vector, and data entry should be terminated when a negative number is entered. The negative number won't be read into the vector. Write a program to test a function that returns the position of the smallest values in a vector of integers. Then print the result the function returns. If there are more than one smallest number in the vector, you should print the minimum position index. The following is an example.

Example:

Input: 1 2 3 4 5 6 1 -2

Output: 1

Array~

5. Read a set of non-empty numerical grades from the keyboard into an array. The maximum number of grades to be entered is 60, and data entry should be terminated when a negative number is entered. The negative number won't be read into the array. The length of the array is no bigger than 100. Have your program sort and print the grades in ascending order.

Example:

Input: 30 40 50 60 20 -5

Output: 20 30 40 50 60