Independent work – week 2

Task 1. Basic level
Condition
An arbitrary list is given.
Present it in reverse order.

Task 2. Basic level
Condition
Write a change(list) function that takes a list and swaps its first and last elements.
There are at least 2 items in the original list.

Task 3. Basic level
Condition
The to_list() function accepts an unlimited number of parameters.
Process them so that you get a list of these elements at the output.

Task 4. Basic level
Condition
Nikolai thought about searching for a "useless" number based on the list.
The essence of it is as follows: it takes an arbitrary list of numbers, finds the largest of them, and then divides it by the length of the list.
The student has not yet figured out where such a value can be useful, but is looking for your help in implementing such a function of useless(s).

Task 5. Basic level
Condition
You need to create a list_sort(lst) function that sorts the list of numbers in descending order of their absolute value.
The solution requires the sort() method, to which a function is passed that determines the absolute value.

Task 6. Advanced level
Condition
At the input we have a list of strings of different lengths.
It is necessary to write the all_eq(list) function, which will return a new list of strings of the same length.
The length of the final line is determined based on the largest of them.
If a particular line is shorter than the longest, add underscores from the right edge to the required number of characters.
Do not change the location of the elements of the initial list.
First you need to determine the length of each row in the list and find the maximum. Next, we add the characters "_" to the strings whose length is less.