

List Reverse

For the surrounding details regarding this programming assignment, refer to the lesson titled *Recursion*.

Specification

Write a recursive function that reverses a Python list. Your function should **take a Python list as input** and **return the reversed list**. Obviously, your recursive function should implement a base case (i.e., the case that has a trivial solution) and a recursive step (i.e., the case that breaks the problem down into a smaller problem).

Constraints and notes

Note the following constraints and notes (see the rubric below for more detail):

- Your program should first create a list populated with the integers 1 through 35 and display the list; then, call your recursive function (passing in your created list), reverse it, and return the reversed list; finally, display the reversed list;
- Your recursive function must not use loops (i.e., you must reverse the list recursively);
- You must not use any of Python's built-in sorting functions; and
- Of course, you must use good coding style (which includes things such as including an informative header at the top of your program, commenting your source code appropriately, using meaningful variable and (if applicable) constant identifiers, and so on).

Deliverable

Submit a Python 3 source file that can be executed through an IDE (such as Thonny) or via the command line (e.g., `python3 ListReverse.py`).

Hints

Here are some hints to help get you started:

- Of course, feel free to Google things and/or discuss high-level ideas with your classmates. As always, do not Google solutions and make sure to **cite sources** (including your classmates).
- Consider using array slices to help you.

Rubric

Please note the following rubric for this programming assignment:

List Reverse		
#	Item	Points
1	Good coding style	10
2	List correctly created	5
3	List correctly reversed	12
4	Function properly implemented	13
5	Output is correct	5
TOTAL		45