

There are more methods for lists than we've talked about in class. Below is a list of common list methods. I encourage you to read (and use) them as you are working on the problems below.

<https://docs.python.org/3/tutorial/datastructures.html>

Below are several problems, all of which are within your ability. As a point of transparency, I would consider any of the problems above the line fair exam style questions. Some would be easy, others would be challenging, but all would be fair.

1. Come up with at least three different ways to create a list containing 100 zeros.
 2. Write code that adds 3 to every number in a list of numbers named *myListOfNumbers*
 3. Write code that removes all the even numbers out of a list named *myList*.
 4. Write code that removes all the odd numbers out of a list named *myList*.
 5. Given the following code snippet,
 List1 = [1,3,5,7]
 List2 = List1
 List2[2]=10
what is the value of list1[2]?
 6. What is the difference between a *list* and a *tuple*?
 7. Write code that replaces each number in a list named *data* with it's absolute value.
 8. Write a function that takes a list and an integer as arguments and shifts the content of the list to the right by the integer amount. For example, if the list is [a,b,c,d,e,f,g] and the integer is 2, the function should change the list to [f,g,a,b,c,d,e].
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9. Make a list of words in a sentence. no punctuation should be included with a word in your list. For example, "hello!" should be included as "hello". You **should** distinguish between capital and lowercase letters, so "Hello" is different than "hello".
 10. Make a list of words in a sentence. no punctuation should be included with a word in your list. For example, "hello!" should be included as "hello". You **should not** distinguish between capital and lowercase letters, so "Hello" is the same as "hello".
 11. Print all the words from the **Address at Rice University on the Nation's Space Effort** speech. The contents of that speech can be found here https://en.wikipedia.org/wiki/We_choose_to_go_to_the_Moon.