

Name: \_\_\_\_\_

Use this quiz to help make sure you understand the videos/reading. **Answer all questions.** Make additional notes as desired. **Not sure of an answer?** Ask your instructor to explain in class and revise as needed then. **Please print two-sided if practical.**

Throughout, where you are asked to “circle your choice”, you can circle or underline it (whichever you prefer).

1. When the code snippet below is executed, what gets printed?

```
numbers = [5, 9, 2]
numbers.append(3)
print('Appended:', numbers)

numbers.insert(2, 1)
print('Inserted:', numbers)

popped = numbers.pop(3)
print('Popped:', popped, numbers)

numbers.remove(9)
print('Removed', numbers)
```

Output (*fill in the blanks*):

Appended: \_\_\_\_\_

Inserted: \_\_\_\_\_

Popped: \_\_\_\_\_

Removed: \_\_\_\_\_

2. If  $a$  and  $b$  are lists such that  $a + b == b + a$ , is it necessarily true that  $a == b$ ?      **Yes**    **No**    (circle your choice)
3. Suppose that *numbers* is a non-empty list of numbers. Write a **single** expression (NOT a loop!) that computes the average of the numbers in the list. HINT: Methods like sum() can take multiple values, or a list of items!
4. Suppose that  $x$  and  $y$  are two variables. Write statements that swap their values. For example, if  $x$  is 2 and  $y$  is 8, then after your statements,  $x$  should be 8 and  $y$  should be 2.

5. Write the complete definition (including the header line) of a function **fill** that fills an existing list with a given value (i.e., replaces the current value in each list position).

For example, **fill(scores, 10)** should replace each element of the list **scores** by the number **10**.

6. Consider the following function that reverses a list. **Answer here:** \_\_\_\_\_

```
def reverse(values):  
    result = []  
    for k in range(len(values)):  
        result.append(values[len(values) - 1 - k])  
  
    return result
```

If the list **scores** initially contains the numbers 1, 4, and 9 (in that order), what does **scores** contain after the call **reverse(scores)**? (*Hint:* careful, this is a little tricky!)

7. List a few operations that you can do with a list that you cannot do with a tuple.