**Name:** _____ **Section:** **1** **2**

**1 =** Mutchler, 2nd–3rd periods. **2 =** Mutchler, 4th–5th periods.

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).

**Textbook Reading**: ***Section 6.2 – List Operations*** (pages 284 – 290)

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 an explicit loop!) that computes the average of the numbers in the list.

**Textbook Reading**: ***Section 6.3 – Common List Algorithms*** (pages 290-297)

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***.

**Textbook Reading**: ***Section 6.4 – Using Lists with Functions*** (pages 297-303

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.