Name: _____ **Section: 2 (7th-8th) or 3 (9th-10th)**

Do the reading assigned below and answer these questions either while reading or afterwards (your choice). ***Not sure of an answer?*** Ask your instructor to explain ***at the beginning of the next class session.***

Reading for this quiz: From your textbook (Zelle):

- **From Chapter 1: Sections 1.4 through 1.7, plus section 1.9**
- **From Chapter 2: Sections 2.1 through 2.4**

Study the program on the next page. Then answer the questions below as best you can. ***If there is anything in the program that you don't completely understand, bring those questions to class!***

1. Where does ***execution*** traditionally begin?

2. What is the first ***statement*** that executes? The second? The third?

3. Where is the chaos function ***called*** (i.e., ***invoked***, i.e., made to run)?

   Where is it ***defined*** (i.e., where are the statements that execute when the function is called)?

4. Where is a ***doc-comment***? What is the purpose of doc-comments?

5. Where is an ***internal comment***? What is the purpose of internal comments?

6. What notation marks the beginning of a ***function***?

   The ***name*** of the function?

   The ***body*** of the function (that is, how can we tell when one function ends and another starts)?

7. What expression causes this program to pause and wait for the user to type some ***input***?

8. What function converts that input from a ***string*** (i.e., a sequence of characters) to a ***floating-point number*** (i.e., a number that has a decimal point)?

9. What are the two ***variables*** in this program?

10. What symbol ***assigns*** a value to a variable?

11. What side of the assignment is the assigned variable – the left side or the right side?

12. What expression makes the program ***loop***? What is the body of that loop? How can you tell where the body of a loop ends?

13. What function ***prints*** things (i.e., displays them on the console)?

```
def main():
    """ Calls a function (chaos). """
    chaos()

def chaos():
    """
    Computes and prints a chaotic sequence of numbers,
    as a function of a number input from the user.
    """
    print('This function illustrates a (possibly) chaotic sequence.')
    input_string = input('Enter a number between 0 and 1: ')
    x = float(input_string)

    for k in range(10):
        x = 3.9 * x * (1 - x) # Try constants other than 3.9 if you like
        print(k, ':', x)

    print('Examine the sequence of numbers printed in the right column.')
    print('Does it appear chaotic?')
```