

Name: \_\_\_\_\_ Section: 1 (7<sup>th</sup>-8<sup>th</sup>) or 2 (9<sup>th</sup>-10<sup>th</sup>)

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**. You can then fill in your answer, still for full credit. (But no fair doing that unless you attempted the question first.)

**Reading for this quiz: Chapter 3 of your textbook (Zelle)**

1. Is the object `3` an `int` or a `float`? (Circle your choice.)
2. Is the object `3.0` an `int` or a `float`? (Circle your choice.)
3. What does `16 / 3` evaluate to? (Just write a reasonable approximation.) \_\_\_\_\_
4. What does `16 // 3` evaluate to? \_\_\_\_\_
5. What does `16 % 3` evaluate to? \_\_\_\_\_
6. What does `2 ** 3` evaluate to? \_\_\_\_\_
7. Write the statement that makes the variable `x` have as its new value `3.5` **plus** the value that it had before this statement.
8. What are the two possible values of a `bit`? \_\_\_\_\_ and \_\_\_\_\_
9. How many different things can you represent with: 2 bits? \_\_\_\_\_ 4 bits? \_\_\_\_\_ 10 bits? \_\_\_\_\_
10. Rounding to one (yes, just one!) significant digit, how many different values can you represent with:  
10 bits: \_\_\_\_\_  
20 bits: \_\_\_\_\_  
30 bits: \_\_\_\_\_
11. True or False: an `int` (in Python 3) has a limit on its size other than the limit imposed by the size of the physical memory in the computer. **True** or **False**
12. True or False: a `float` (in Python 3) has a limit on its size other than the limit imposed by the size of the physical memory in the computer. **True** or **False**
13. True or False: a `float` (in Python 3) has a limit on its *precision* other than the limit imposed by the size of the physical memory in the computer. **True** or **False**
14. True or False: an `int` (in *Java* and most other programming languages) has a limit on its size other than the limit imposed by the size of the physical memory in the computer. **True** or **False**

**If you have other questions about Chapter 3, ask them at your next class session!**