

CS-521 Homework Assignment 1

(updated 12/17/2021)

Answer the following 10 questions (and subparts) using information you find in Chapter 1 of “The Practice of Computing Using Python.” You can use the book’s exact text for your answers. Answers should be short, clear, and reasonably complete. The answers must be in this document.

1. According to the textbook, what is a computer program?

Answer:

2. Python is an **interpreted** language. What does “interpreted” mean in this context?

Answer:

3. What is a Python *comment*? In what ways can you indicate a comment? What are some purposes for writing comments?

Answer:

4. In Python , what is a *namespace*?

Answer:

5. Regarding Whitespace in python:

a. What is whitespace? Include examples.

Answer:

b. When does whitespace matter?

Answer:

c. When does whitespace not matter?

Answer:

CS-521 Homework Assignment 1

6. Regarding Python statement and expressions:

a. Explain the difference between a statement and an expression

Answer:

b. Give an example of both a statement and an expression

Answer:

c. Explain what is meant by a statement having a *side effect*

Answer:

7. Mixed operations:

a. What data type results when you divide an integer by a float?

Answer:

b. What data type results when you divide a float by an integer?

Answer:

c. Why do the resulting data type(s) answered above make sense - as opposed to other data type(s)?

Answer:

CS-521 Homework Assignment 1

8. Consider integer values of a , b , and c , and the expression $(a + b) * c$.

In mathematics, we can substitute square brackets $[]$ or curly braces $\{\}$ for parentheses $()$.

Is that same substitution valid in Python? Explain why or why not and be specific.

Answer:

9. Evaluate the following 3-line Python program:

```
1> my_int = 4 + 3 * 2
2> my_int = my_int + 5
3> print(my_int)
```

a. If you execute the three lines of code above, what will be printed?

Answer:

b. Explain your answer using the rules of assignment.

Answer:

c. Rewrite line 2 using the `+=` symbol

Answer:

10. Evaluate the following 3-line Python program:

```
1> my_var1 = 9.0
2> my_var2 = 4
3> print(my_var1 % my_var2)
```

If you execute this program, what will be printed and why?

Answer:

CS-521 Homework Assignment 1

Where to submit?

Rename this completed Word document as **<your email prefix>_hw_1.docx**

Click Assignments in the Navigation Area and then click on the title of the assignment to enter the submission area and upload your response.