

Name: _____

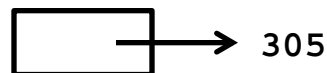
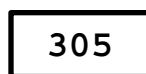
Use this quiz to help make sure you understand the videos/reading. **Answer all questions.** Make additional notes as desired. **Not sure of an answer?** Ask your instructor to explain in class and revise as needed then.

You can print this document and handwrite your solutions, or you can complete this quiz electronically in this document. In either case, PRINT your solution and bring your PRINTED solution to class.

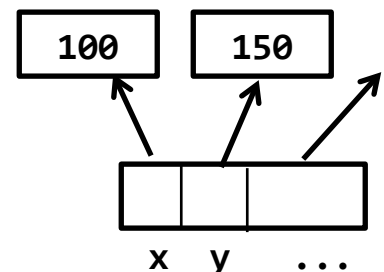
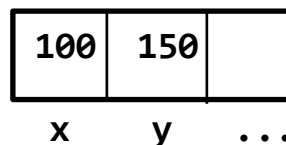
Throughout, where you are asked to “circle your choice”, you can circle or underline it (whichever you prefer).

[Video: Box-and-Pointer Diagrams](#)

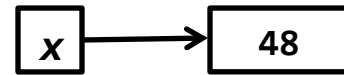
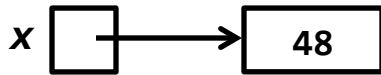
1. True or false: **Variables are REFERENCES to objects.** **True** **False** (circle your choice)
2. True or false: **Assignment** (e.g. $x = 100$) causes a variable to refer to an object. **True** **False** (circle your choice)
3. True or false: **Function calls** (e.g. $\text{foo}(54, x)$) also cause variables to refer to objects. **True** **False** (circle your choice)
4. Give one example of an object that is a **container** object:
5. Give one example of an object that is **NOT** a **container** object:
6. Which of the following demonstrates the correct way to depict a **NON-container** object in a box-and-pointer diagram? (Circle your choice.)



7. Which of the diagrams shown to the right demonstrates the correct way to depict a **container** object (here, a **zg.Point**) in a box-and-pointer diagram? (Circle your choice.)

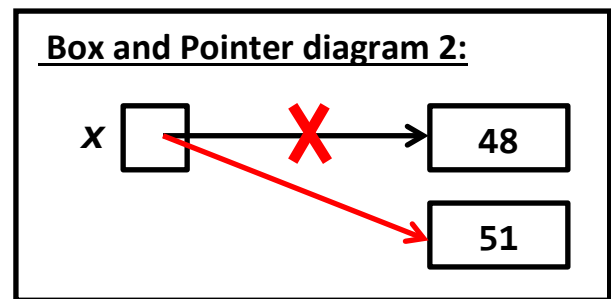
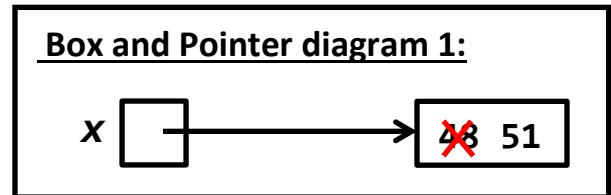


8. Which of the following demonstrates the correct way to depict an **assignment** statement in a box-and-pointer diagram? (Circle your choice.)



9. Which of the box-and-pointer diagrams shown to the right more accurately reflects the execution of the statements shown in the box below. (Circle your choice.)

```
x = 48
x = x + 3
```



10. Consider the following statements:

```
c1 = rg.Circle(rg.Point(200, 200), 25)
c2 = c1
```

At this point, how many **rg.Circle** objects have been constructed? 1 2
(circle your choice)

11. Continuing the previous problem, consider an additional statement that follows the preceding two statements:

```
c1.radius = 77
```

True or False: After the above statement executes, the variable **c1** refers to the same object to which it referred prior to this statement.

True False (circle your choice)

12. Continuing the previous problems:

- What is the value of **c1**'s radius after the statement in the previous problem executes? 25 77 (circle your choice)
- What is the value of **c2**'s radius after the statement in the previous problem executes? 25 77 (circle your choice)