01 LAB - Variables, Statements, Expressions

1. In Python, must a variable be declared before it is assigned a value?

Your answer here

2. Which of the following statements assigns the value 100 to the variable x in Python:

a. int x = 100
b. x == 100
c. x = 100
d. x << 100
e. x ← 100

Your answer here

3. In Python, a variable may be assigned a value of one type, and then later assigned a value of a different type. Explain

Your answer here

4. Consider the following sequence of statements:

n = 300
m = n

Following the execution of these statements, Python has created how many objects and how many references? Explain.

a. Two objects, two references
b. One object, one reference
c. Two objects, one reference
d. One object, two references

Your answer here

5. Which of the following are valid Python variable names? Explain why the other ones are invalid.

a. home_address
b. ver1.3
c. route66
d. 4square
e. Age
f. return

Your answer here

6. You are reading Python code, and these statements appear scattered in different locations throughout the code:

```
employeenumber = 4398
   …
EmployeeNumber = 4398
   …
employeeNumber = 4398
```

Do these statements refer to the same or different variables? Explain.

Your answer here

7. Which of the following styles is recommended for multi-word variable names:

a. distance_to_nearest_town (Snake Case)
b. distanceToNearestTown (Camel Case)
c. DistanceToNearestTown (Pascal Case)

Your answer here

NOTE: For the next questions write your Python code on Replit and then copy/paste your code here:

8. Store your own version of the message "Hello World!" in a variable, and print it.

```
Your code here
```

9. Store the message “My favorite color is: ” in a variable. Store your favorite color in another variable. Then, concatenate the variables to print the message “My favorite color is ___” (fill the black with your color.

```
Your code here
```

10. Store your first name and last name in separate variables, and then combine them to print out your full name. Use concatenation to make a sentence about you, store that sentence in a variable, then print it.

```
Your code here
```