While Python does not natively allow the user to access pointers, this problem is easy to solve by thinking using pointers. In Program 1, variable a is initially set to 7. Then, variable b is set to variable a, aka it has the same pointer value as variable a. It now contains the number 7 which is an However, when the statement a+1 is processed, it sets a to the new integer of 8. Thus, when both variables are printed, they will have different values. On the other hand, in Program 2, variable a is set to a list. When b is set to a, b is set to the same list and will have the same pointer to the list as a. The append method does not actually create a new list. It simply changes the current list the pointer is pointing to. Thus, the statement append(9) changes the list that both a and b points to. Thus, when printing both variables, they would print the same thing.

Program 1

Program 2
[1,2,3,4]