

1. Consider the following program written in C syntax. Write the values of the variables for each parameter passing method.

a. passed by value. (original value unchanged)

Swap #1 → value = 2, list[5] = {1, 3, 5, 7, 9}

Swap #2 → (same as above)

Swap #3 → (same as above)

b. passed by reference (argument references are passed)

Swap #1 → value = 1, list = {2, 3, 5, 7, 9}

Swap #2 → value = 1, list = {3, 2, 5, 7, 9}

Swap #3 → value = 2, list = {3, 1, 5, 7, 9}

c. passed by value-result (acts similar to pass-by-reference)

Swap #1 → value = 1, list = {2, 3, 5, 7, 9}

Swap #2 → value = 1, list = {3, 2, 5, 7, 9}

Swap #3 → value = 2, list = {3, 1, 5, 7, 9}

d. Python, pass-by-object (acts as pass-by-value for immutables)

Swap #1 → value = 2, list[5] = {1, 3, 5, 7, 9}

Swap #2 → (same as above)

Swap #3 → (same as above)

2. Consider the following program. For each parameter passing method, write the values of list after calling fun().

a. passed by value. (original value unchanged)

list = {1, 3}

b. passed by reference (argument references are passed)

list = {2, 6}

c. passed by value-result (acts similar to pass-by-reference)

list = {2, 6}

d. Python, pass-by-object (acts as pass-by-value for immutables)

list = {1, 3}