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Hand-in week 6

Exercise 1

The function starts off by initializing x, y, and z as integers and w and q as integer pointers. The integers are set to x = 0, y = 1, and z = 2. Afterwards, w is set to point at the address of x and q is set point to point at the address of y. When the statement *w = y is executed, the value of w is set to the value of y, but though it's a pointer, it doesn't get the address of y. However, since it points to x, x is now set to 1. The same thing happens when *q = z, and y is now 2.

In line 14, *w is set to the value of x + y + z + *q, equivalent to 1 + 2 + 2 + 2 = 7

Since w is now 7, so is x.

In line 15, *q = x + y + z + *w, equivalent to 7 + 2 + 2 + 7 = 18

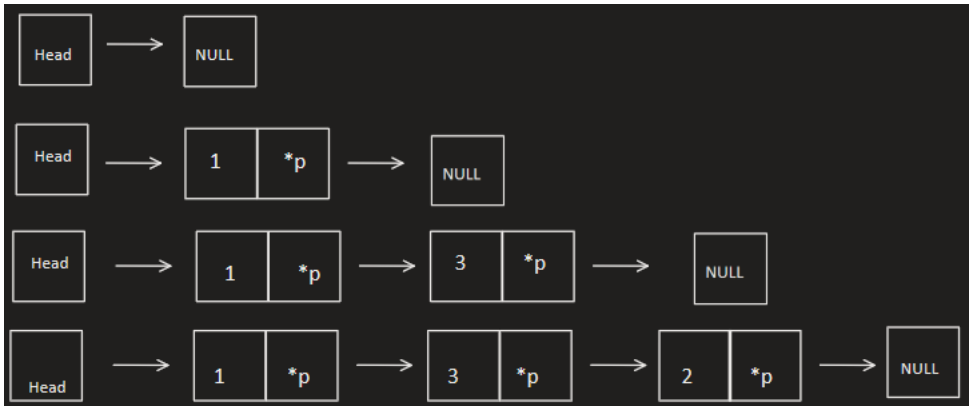
Since q is now 18, so is y.

Therefore, the function prints the following:

```
x=7, y=18, z=2
```

Exercise 3

a.



c.

The program does not print all elements in the array as the pointer variable p never moves to the next element in the array at any time. Therefore, the postcondition is not fulfilled. Instead, the program just keeps printing the first element in the array.