```
class LN:
    def __init__(self : "LN", value : object, next : "LN" = None):
        self.value = value
        self.next  = next
```

Each linked lists is created from the class **LN**. Starting with each list as shown, indicate what state(s) change(s) when the statement to its left is executed. **Cross out** any values that are replaced and **Write in** new boxes or values (text or arrows).

Hint: put a vertical stroke in the variable/ attribute (box) specified on the left side of the **=** which will receive the reference. Put a circle on the tail of the arrow specified on the right hand side of the **=**. Copy the value (reference) by making the vertical-stroked box refer to the object the circle-tailed arrow refers to. I will demonstrate in class. At some level, this is no more complicated than picturing **x = 1** followed by **y = x**.

x = x.next

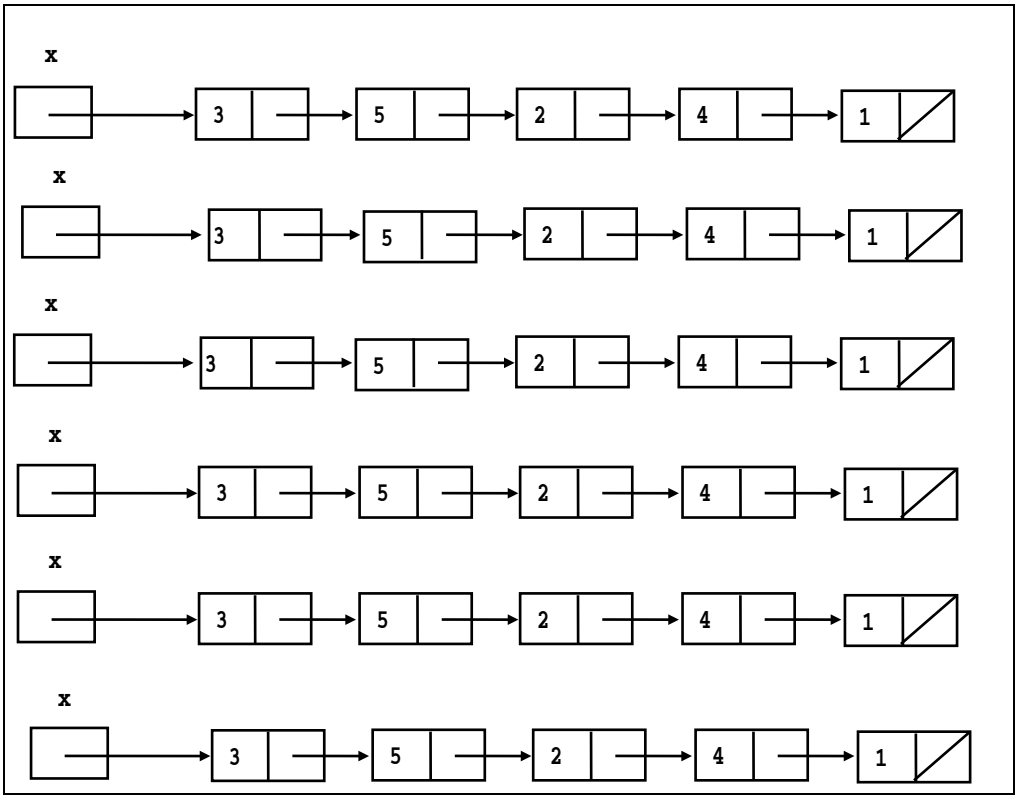
x.next.value = x.value

x.next = x.next.next

x.next.next = x.next

x.next.next = x

x = LN(7,x.next.next)



Assume **x** refers to a linked list with the values shown below. What is the result of executing **x = magic(x)** using the following code (which does something interesting with the linked list)?

```
def magic(ll):
    answer = None
    while ll != None:
        t_m      = ll
        ll       = ll.next
        t_m.next = answer
        answer   = t_m
    return answer
```