

```

template<class T>
class LN {
public:
    LN ()                      : next(nullptr) {}
    LN (const LN<T>& ln)       : value(ln.value), next(ln.next) {}
    LN (const T& v, LN<T>* n = nullptr) : value(v), next(n) {}

    T      value;
    LN<T>* next;
};

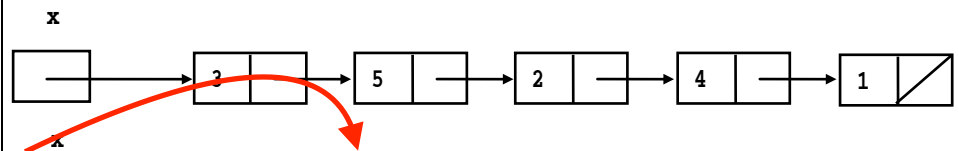
```

Each linked lists is created from the class **LN<int>**. 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).

```

X = new LN<int>
    (7, x->next->next);

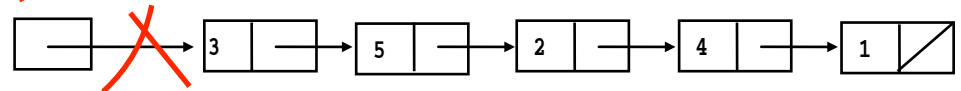
```



```

x = x->next;

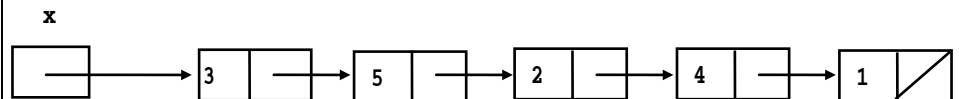
```



```

x->next->value = x->value;

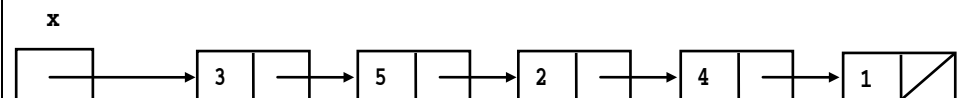
```



```

x->next = x->next->next;

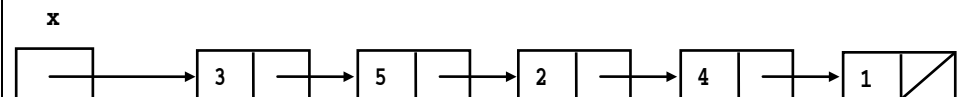
```



```

x->next->next = x->next;

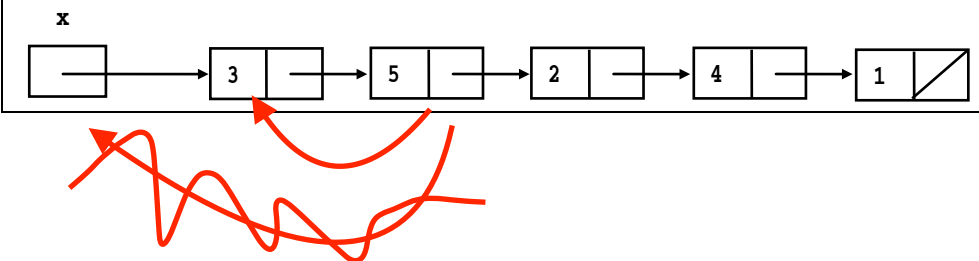
```



```

x->next->next = x;

```



Assume `LN<int>* x` and `x` points to a linked list with 4 or 5 values. What changes are made when executing the following code?

```
LN<int>* answer = nullptr;
while (x != nullptr) {
    LN<int>* to_move = x;
    x = x->next;
    to_move->next = answer;
    answer = to_move;
}
```

```
x = answer;
```

