



Question 1 points

Write the method `public static <T> void removeLast(List<T> l, int k)`, user of the ADT List, which removes the last k elements of l . Assume that l is **not empty** and that $k \geq 0$ and valid (less or equal the list's length).

```
1 public static <T> void removeLast(List<T> l, int k) {  
2     ...  
3     ...  
}
```

1. Line 2:

- ☐ (A) `l.remove();`
- ☒ (B) `int cpt = 0;`
- ☐ (C) `l.findNext();`
- ☐ (D) `int cpt = 1;`
- ☐ (E) None

2. Line 3:

- ☐ (A) `l.findLast();`
- ☐ (B) `l.remove();`
- ☒ (C) `l.findFirst();`
- ☐ (D) `l.findNext();`
- ☐ (E) None

3. Line 4:

- ☐ (A) `while (!l.first()){`
- ☐ (B) `while (l.last()){`
- ☒ (C) `while (!l.last()){`
- ☐ (D) `for(int i = 0; i < k; i++){`
- ☐ (E) None

4. Line 5:

- ☐ (A) `l.insert(l.retrieve());`
- ☒ (B) `cpt++;`
- ☐ (C) `l.insert(k);`
- ☐ (D) `l.remove();`
- ☐ (E) None

5. Line 6:

- ☐ (A) `l.findPrevious(); }`
- ☐ (B) `l.remove(); }`
- ☐ (C) `l.findLast(); }`
- ☐ (D) `l.findFirst(); }`
- ☒ (E) None `l.findNext();`

6. Line 7:

- ☐ (A) `l.remove();`
- ☐ (B) `l.findLast();`
- ☒ (C) `l.findFirst();`
- ☐ (D) `l.findNext();`
- ☐ (E) None

7. Line 8:

- ☐ (A) `for(int i = 0; i < k; i++)`
- ☐ (B) `for(int i = 0; i < cpt - k; i++)`
- ☐ (C) `for(int i = 0; i < cpt; i++)`
- ☒ (D) `for(int i = 0; i <= cpt - k; i++)`
- ☐ (E) None

8. Line 9:

- ☐ (A) `l.findFirst();`
- ☒ (B) `l.findNext();`
- ☐ (C) `l.update(null);`
- ☐ (D) `l.remove();`
- ☐ (E) None

9. Line 10:

- ☒ (A) `for(int i = 0; i < cpt; i++)`

- ☐ (B) `for(int i = 1; i < k; i++)`
☒ (C) `for(int i = 0; i < k; i++)`
☐ (D) `for(int i = 0; i < cpt - k; i++)`
☐ (E) None

10. Line 11:

- ☐ (A) `l.update(null);`
☒ (B) `l.remove();`
☐ (C) `l.remove(); l.findNext();`
☐ (D) `l.insert(l.retrieve());`
☐ (E) None

Question 2 points

Write the method `removeOddElems`, member of the class `LinkedList`, that removes all the elements having an odd position (the position of the first element is 0). Assume that the list is **not empty**. The method signature is: `public void removeOddElems()`.

Example 1. If $l: A \rightarrow B \rightarrow C \rightarrow D \rightarrow E$, then $l.oddElems()$ returns: $A \rightarrow C \rightarrow E$.

```

1 public void removeOddElems() {
2     ...
3     ...
  
```

1. Line 2:

- ☒ (A) `Node<T> p = head;`
☐ (B) `Node<T> p = head.next;`
☐ (C) `Node<T> p = current;`
☐ (D) `Node<T> p = head.next.next;`
☐ (E) None

2. Line 3:

- ☒ (A) `while (p != null && p.next != null){`
☐ (B) `while (p != null){`
☐ (C) `while (p.next.next != null){`
☐ (D) `while (current.next != null){`
☐ (E) None

3. Line 4:

- ☐ (A) `p.next = p;`
☐ (B) `p = p.next;`
☒ (C) `p.next = p.next.next;`
☐ (D) `current.next = p;`
☐ (E) None

4. Line 5:

- ☒ (A) `p = p.next;}`
☐ (B) `p.next.next = current.next;}`
☐ (C) `p = p.next.next;}`
☐ (D) `p.next.next = p.next;}`
☐ (E) None