

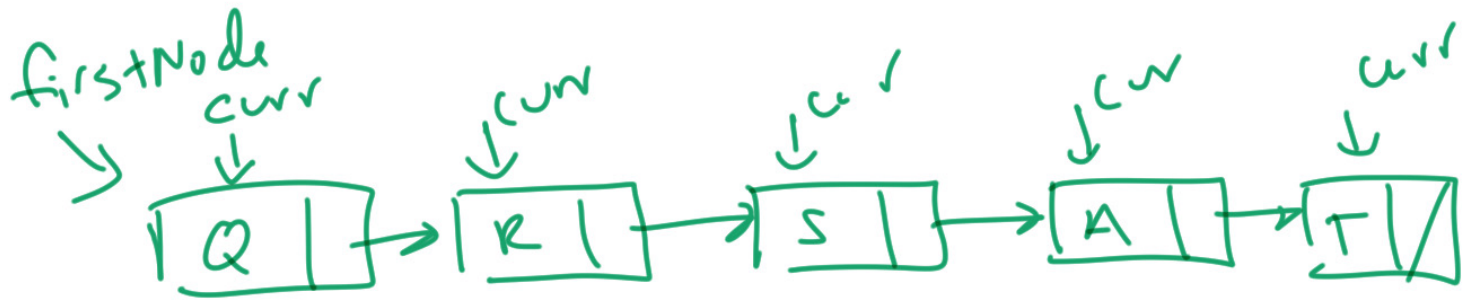
```
393  /**
394   * Recursive helper methods that displays
395   * contents of the underlying array in order
396   * @param first
397   * @param last
398   */
399  private void displayArray(int first, int last) {
400      System.out.println(contents[first]);
401      if (first < last)
402          displayArray(first+1, last);
403  }
404
405  /**
406   * displays contents of bag
407   */
408  public void display() {
409      displayArray( 0, numberOfEntries - 1);
410
411
```

```
192  /**
193   * Recursive helper method to
194   * print the contents of the chain from the first node forward
195   * @param curr
196   */
197  private void displayChain(Node<T> curr) {
198      if (curr != null) {
199          System.out.println(curr.getData());
200          displayChain(curr.getNext());
201      }
202  }
203
204  /**
205   * Prints the contents of the chain
206   */
207  public void display() {
208      displayChain(firstNode);
209  }
```

```

---
212  /**
213   * Recursive helper method to
214   * print the contents of the chain from the last node forward
215   * @param curr
216   */
217  private void displayChainBackwards(Node<T> curr) {
218      if (curr != null) {
219          displayChainBackwards(curr.getNext());
220          System.out.println(curr.getData());
221      }
222  }
223
224  /**
225   * Prints the contents of the chain backwards
226   */
227  public void displayBackwards() {
228      displayChainBackwards(firstNode);
229  }
230

```



Q R S A T
T A S R Q

