(a) Write the `StringFormatter` method `totalLetters`, which returns the total number of letters in the words in its parameter `wordList`. For example, if the variable `List<String> words` is `["A", "frog", "is"]`, then the call `StringFormatter.totalLetters(words)` returns 7. You may assume that all words in `wordList` consist of one or more letters.

Complete method `totalLetters` below.

```
/** Returns the total number of letters in wordList.
 *  Precondition: wordList contains at least two words, consisting of letters only.
 */
public static int totalLetters(List<String> wordList)
```

GO ON TO THE NEXT PAGE.

(b) Write the `StringFormatter` method `basicGapWidth`, which returns the basic gap width as defined earlier.

Class information for this question

public class StringFormatter
<u></u>

public static int totalLetters(List<String> wordList)
public static int basicGapWidth(List<String> wordList,
                                int formattedLen)
public static int leftoverSpaces(List<String> wordList,
                                 int formattedLen)
public static String format(List<String> wordList, int formattedLen)

WRITE YOUR SOLUTION ON THE NEXT PAGE.

Assume that `totalLetters` works as specified regardless of what you wrote in part (a). You must use `totalLetters` appropriately to receive full credit.

Complete method `basicGapWidth` below.

```
/** Returns the basic gap width when wordList is used to produce
 *     a formatted string of formattedLen characters.
 *  Precondition: wordList contains at least two words, consisting of letters only.
 *                formattedLen is large enough for all the words and gaps.
 */
public static int basicGapWidth(List<String> wordList,
                                int formattedLen)
```

Part (c) begins on page 22.

GO ON TO THE NEXT PAGE.

(c) Write the `StringFormatter` method `format`, which returns the formatted string as defined earlier. The `StringFormatter` class also contains a method called `leftoverSpaces`, which has already been implemented. This method returns the number of leftover spaces as defined earlier and is shown below.

```
/**  Returns the number of leftover spaces when wordList is used to produce
 *    a formatted string of formattedLen characters.
 *    Precondition: wordList contains at least two words, consisting of letters only.
 *                  formattedLen is large enough for all the words and gaps.
 */
public static int leftoverSpaces(List<String> wordList,
                                 int formattedLen)
{   /* implementation not shown */   }
```

Class information for this question

<u>public class StringFormatter</u>

```
public static int totalLetters(List<String> wordList)
public static int basicGapWidth(List<String> wordList,
                                int formattedLen)
public static int leftoverSpaces(List<String> wordList,
                                 int formattedLen)
public static String format(List<String> wordList, int formattedLen)
```

WRITE YOUR SOLUTION ON THE NEXT PAGE.