#1). The following class `WordList` is designed to store and manipulate a list of words. The incomplete class declaration is shown below. You will be asked to implement two methods.

```
public class WordList
{
  private ArrayList myList;   // contains Strings made up of letters


    // postcondition: returns the number of words in this WordList that
    //                are exactly len letters long
    public int numWordsOfLength(int len)
    {  /* to be implemented in part (a) */  }


    // postcondition: all words that are exactly len letters long
    //                have been removed from this WordList, with the
    //                order of the remaining words unchanged
    public void removeWordsOfLength(int len)
    {  /* to be implemented in part (b) */  }


    // ... constructor and other methods not shown
}
```

(a) Write the `WordList` method `numWordsOfLength`. Method `numWordsOfLength` returns the number of words in the `WordList` that are exactly `len` letters long. For example, assume that the instance variable `myList` of the `WordList` animals contains the following.

```
["cat", "mouse", "frog", "dog", "dog"]
```

The table below shows several sample calls to `numWordsOfLength`.

Call	Result returned by call
animals.numWordsOfLength(4)	1
animals.numWordsOfLength(3)	3
animals.numWordsOfLength(2)	0

Complete method `numWordsOfLength` below.

```
    // postcondition: returns the number of words in this WordList that
    //                are exactly len letters long
    public int numWordsOfLength(int len)
```

(b) Write the `WordList` method `removeWordsOfLength`. Method `removeWordsOfLength` removes all words from the `WordList` that are exactly `len` letters long, leaving the order of the remaining words unchanged. For example, assume that the instance variable `myList` of the `WordList` `animals` contains the following.

```
["cat", "mouse", "frog", "dog", "dog"]
```

The table below shows a <u>sequence</u> of calls to the `removeWordsOfLength` method.

<u>Call</u>	<u>myList after the call</u>
`animals.removeWordsOfLength(4);`	`["cat", "mouse", "dog", "dog"]`
`animals.removeWordsOfLength(3);`	`["mouse"]`
`animals.removeWordsOfLength(2);`	`["mouse"]`

Complete method `removeWordsOfLength` below.

```
// postcondition: all words that are exactly len letters long
//                have been removed from this WordList, with the
//                order of the remaining words unchanged
public void removeWordsOfLength(int len)
```

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