ArrayList Written Assignment

**Part 1 - The Basics**

1. Declare an ArrayList of type String called *contacts*.

2. Declare an ArrayList of type Card called *deck*.

3. Assume you have an ArrayList of type String called *contacts*, which contains the first name of people you know. (as declared above). Write the code to perform the following additions to *contacts*:

1. add the name "Tom" to the end of the list.
2. add the name "Sally" to the beginning of the list.
3. add the name "Greg" at the second to last position in the list.

4. Now write the code to perform the following removals from the *contacts* ArrayList.

1. remove the first occurrence of "Bill" from the ArrayList, if it exists.
2. remove the sixth element from the ArrayList, if it exists. (careful)

5. Now retrieve certain elements from the ArrayList:

1. Output the second element in *contacts*.
2. Output the third element from the end of the ArrayList.

6. Now change the value of certain elements, without adjusting the size of the ArrayList

1. Change the first element to "Henrietta"
2. Change the fifth element to "Brenda"
3. Change the last element to "Victor"

**Part II. Quick Manipulation Methods** - On the back of this sheet or separate sheet of paper:

1. *removeAfterT* - Write a method that will remove all elements in contacts that are preceded with a name that starts with 'T'.

2. *doubleD* - Write a method that will scan through the ArrayList and every time it finds a name that contains a 'D' or 'd', it will add it again to the ArrayList at the index after the original.

3. *changeSpelling* - Any name in the ArrayList that ends with "y" should change that character to "ie".

4. *calculate* - Write a method that will output the product of the indices of first two elements in the *contacts* ArrayList that begin with vowels. (Don't count 'Y' as a vowel)