For these following problems you do not need to turn in the three step analysis or the algorithm, but just submit the source code and output. You should of course do these steps anyway.

1) This problem requires you to write a program that uses static variables. Main program will have the user continue to enter integers one at time and a 0 will stop the loop. After each number is entered it is passed into a procedure. This procedure will determine if the passed in number is an even number, and if is increment a counter. Every third time you call this procedure it will display the number of even numbers entered. This procedure will then need two static variables, one to keep track of number of even numbers, the other to keep track of number of times called this procedure. Sample output below:

Enter number, 0 to quit 5
Enter number, 0 to quit 6
Enter number, 0 to quit 2
There are 2 even numbers

Enter number, 0 to quit 7
Enter number, 0 to quit 4
Enter number, 0 to quit 9
There are 3 even numbers

Enter number, 0 to quit

2) Program has user enter a string and pass this into a function. The function will then determine the number of ‘e’ are in the string. It should count both upper case and lower case e’s. The main will then display this information. Program should continue until user decides to quit.

3) Program will have user enter a string and pass this into a procedure. Procedure will determine the number of Digits and Letters are in string and pass this back to main. The main will then display this information. Program should continue until user decides to quit. See sample output:

Do you want to start Y/N y
Enter string to test --> Hello 1234
Digits = 4
Letters = 5

Do you want to continue, Y/N y
Enter string to test --> 48dk538d2
Digits = 6
Letters = 3