Queens College, CUNY
Computer Science 212 **PM** – Fall 2020 – Exam 1

Last name_____ First name_____Row:____Seat:_____

Question 1: (25 pts.)

Write a complete **main** method that does the following:

1. Takes any number, but at least two, command line arguments which are words (represented as strings) and will print to the console the number of words of that end with a digit. (Hint: loop through the args array)
2. If there are not at least two command line arguments, throw an IllegalArgumentException with an appropriate message.

For example,

```
C:>java Question1 Mary ha8 a little ca4
There are 2 words that end with a digit
```

```
public class Question1 {

      public static void main (String args[]) {









      } //main
} // class Question1
```

Question 2: (25 pts.)

Write a method called *findNums* that takes a two-dimension array of integers as a parameter and returns the number of times a two-digit number appears in the array. For example, if the array (as created by the program below) is

```
10 45  3  8
 2 42
 3 21 44
```

The value returned would be 5 (there are 5 two-digit numbers in the array)

```
public class Question2 {
   public static void main(String args[]){

      int arr[][] = {{10, 45, 3, 8}, {2, 42}, {3, 21, 44}};

      System.out.println("The number of two digit numbers is "+findNums(arr));

   } //main
   public static int findNums (int [][] myArray) {









   } // findNums
} // class Question2
```

Question 3: (25 pts.)

Write a main method that will request the user to enter Strings using a JOptionPane input dialog. The method should continue accepting strings until the user types “STOP”.

Then, using a JOptionPane message dialog, tell the user how many of the strings have an odd length.

```
public class Question3 {

   public static void main (String[] args) {
```

Question 4: (25 pts.)

Write a class called **Pen** that contains the following information:

1. Private instance variables for the price of the pen (float) and color of the pen (String).
2. A two-argument constructor to set each of the instance variables above. If the price is negative, throw an IllegalArgumentException stating the argument that is not correct.

3. Get and Set methods for each instance variable with the same error detection as the constructor.

```
public class Pen {
```