1. **Textbook, Page 528, Problem 1:** ***Rainfall Class***

2. **Programming exercise**: ***Counting occurrence of numbers***

   Write a program that reads the integers between 1 and 100 and counts the occurrences of each. Assume the input ends with 0.

3. **Programming exercise**: ***Printing distinct numbers***

   Write a program that reads in ten *non-zero* integer numbers, and then invoke the following method to save the distinct numbers in another array(i.e., if a number appears multiple times, it is saved only once.):

   ```
   public static int[] saveDistinctNumbers(int[] numbers)
   ```

   The method returns the array of distinct numbers.

   Last, display the result. Here is the sample run of the program:

   ```
   Enter ten numbers: 1 2 3 4 1 6 3 4 5 2
   The distinct numbers are: 1 2 3 4 6 5
   ```

   (***Hint***: Read a number and store it to an array if it is new. If the number is already in the array, discard it. After the input, the array contains the distinct numbers. You will need a variable to record how many numbers have been stored in the array).

4. **Textbook, Page 528, Problem 2:** ***Payroll Class***