# Level 2: Array Exercises (Due Friday Sep 16 @ end of class)

Note: Provide documentation for each procedure.

**Part A:** Modify Array1.java by changing the following. Save as ***Array2a.java***

1. Change the procedures ***findMax*** and ***findMin*** so that the number of occurrences will also be stated.

e.g. The maximum integer is 126. # of occurrences is 1.

The minimum number is 2. # of occurrences is 3.

1. Change the procedure ***search*** so that it will determine if a specific number is NOT found in the array.

**Part B:** This is a new file, call it ***Array2b.java***. Create a menu driven program that will run any procedure described below. Use only local variables.

1. Write a procedure called ***countOccurrences*** which will prompt the user to enter a natural number from 1 to 10 (stop entering numbers when the user enters a number outside the range). The procedure will output the number of the times each number was entered.

e.g. Enter a number: 5

Enter a number: 2

Enter a number: 3

Enter a number: 2

Enter a number: 2

Enter a number: -5

Number # of occurrences

1 0

2 3

3 1

: :

10 0

1. Add procedure ***countOccurrences*2** which is identical to ***countOccurrences*** except that it counts numbers between 15 and 25 inclusive.
2. Add a procedure called ***totals*** which will prompt the user to enter whole numbers from 0 to 99 (stop entering numbers when the entered number is outside the range). The procedure will output the total (sum) of all numbers entered less than 10, the total of all numbers entered in the teens (10 to 19), the total of all numbers entered in the 20s, ... and the total of all numbers entered in the 90s.
3. Add a procedure called ***totals*2** which will look similar to ***totals***, but calculates the totals (sums) slightly differently. The procedure will output the total of all numbers entered less than 10, the total of all numbers entered less than 20, the total of all numbers entered less than 30, ... and the total of all numbers entered less than 100 (so 88 will be included in both totals for numbers less than 90 and less than 100).