HW5

Due November 29th

1. Write a program called LocatingLargest.java that creates an array which can hold ten values. Fill the array with random numbers from 1 to 100. Display the values in the array on the screen. Then use a for loop to search for the largest value in the array, and display that value and its slot number.

Array: 45 87 39 32 93 86 12 44 75 50

The largest value is 93

It is in slot 4

([Source](https://programmingbydoing.com/a/locating-the-largest-value-in-an-array.html))

1. Write a program to read a list of exam grades given as int's in the range of 0 to 100 into an array. You can assume that the maximum number of grades is 100. Use a negative number as a sentinel value to indicate the end of the input. (The negative value is used only to end the loop, do not use it in your calculations).

You program will compute the following:

The average of all the grades.

The number of grades entered.

The number of grades that are greater than or equal to the average.

The number of grades that are less than the average.

Your prompt to the user to enter a grade should be:

Enter a grade:

Your program must produce the following output:

Number of grades =

Number of grades >= average =  
 Number of grades < average =

For example, if the input is:

98 76 45 56 82 75 99 87 35 44 67 32 11 5 0 17 94 56 73 74 75 -1

The output will be:

Enter a grade: 98  
Enter a grade: 76  
Enter a grade: 45  
Enter a grade: 56  
Enter a grade: 82  
Enter a grade: 75  
Enter a grade: 99  
Enter a grade: 87  
Enter a grade: 35  
Enter a grade: 44  
Enter a grade: 67  
Enter a grade: 32  
Enter a grade: 11  
Enter a grade: 5  
Enter a grade: 0  
Enter a grade: 17  
Enter a grade: 94  
Enter a grade: 56  
Enter a grade: 73  
Enter a grade: 74  
Enter a grade: 75  
Enter a grade: -1  
Number of grades = 21  
Number of grades >= average = 11  
Number of grades < average = 10

Please note that your class should be named **GradesArray**.

*Print out the code and the screenshot of the output to receive credit.*