CSE 101   Quiz 3   Score **38** / 50

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Problem 1 (25 points):

Write a **method** that will prompt the user for decimal numbers and will display the maximum.

1. Pass to the method a **parameter** (n) representing how many numbers they will enter
2. **Prompt** the user for n numbers
3. **Returns** the maximum of the n numbers
4. **EXAMPLE** below

Running this code, should produce the output below interface, which should result in the displayed list of values:

```
myThing = findMax(4);
System.out.println("The maximum of "
+"the 4 entered values is " + myThing);
```
```
Please enter number 1 >> 1
Please enter number 2 >> 2.5
Please enter number 3 >> 6.8
Please enter number 4 >> 4.2
The maximum of the 4 entered values is 6.8
```

```
myThing = findMax(3);
System.out.println("The maximum of "
+"the 4 entered values is " + myThing);
```
```
Please enter number 1 >> 100
Please enter number 2 >> -5
Please enter number 3 >> -125
The maximum of the 3 entered values is 100.0
```

Questions (3 points each):

1. What datatype should n be?

   integer

2. What datatype should be returned?

   double

3. To store the values, we must use an array (circle one): (TRUE) FALSE -3

4. What statement or Java keyword should be used to return the list?

   foreach   -3 6

Code (13 points):

NOTE: This is a method that does not display anything. If **main(String[] args)**, **System.out** for displaying the list items, or **import** is written, you will receive zero (0) points for this section. Assume all necessary items are imported already.

```
                                    3
public static double findMax (int n) {
        Scanner inp = new Scanner (System.in);          2
double [] nums = new arr[n];     double maxnum = 0;
        for (int i=0 ; i<n; i++){                3
  😐   print ("please enter number "+(i+1) + " >> ")
        nums[i] = inp.nextDouble() ; }
        if (nums[i] > maxnum) { maxnum = nums[i]; }  2
        return maxnum;              }  2
```

(19)

Problem 2 (25 points):

Write a **main method** that will prompt the user for integer numbers and will display the maximum.

1. Will take the number of values (n) as a command line argument.
2. **Prompt** the user for *n* numbers
3. **Displays** a list of numbers with all negative numbers entered first, then all non-negative after this (order does not matter). 0 is non-negative.
4. **EXAMPLE** below:

```
C:\>java Quiz3 6
Please enter number 1 >> 5
Please enter number 2 >> 2
Please enter number 3 >> -5
Please enter number 4 >> -6
Please enter number 5 >> 89
Please enter number 6 >> -3
-5, -6, -3, 89, 2, 5
```

Questions (3 points each):

1. What datatype should n be?

   int

2. What datatype should the values entered be?

   int

3. To store the values, we must use an array (circle one): **TRUE** FALSE

4. What statement should be used to display the maximum?

   ~~Method~~ if statement **3** (*circled*)

   (I've just used it on the back page)

Code (13 points):

```java
import java.util.Scanner;
public class Quiz3 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int n = input.nextInt();    int [] argsp;         int [] argsn;
        args[] = new arr [n];

        for (int i = 0; i < n; i++) {                              3
            System.out.println("Please enter number " + (i+1) + ">>-");
                                                             2
            args[i] = input.nextInt();
            if (args[i] < 0) { argsn [i] = args[i] }
            else { argsp [i - arr.length ] = args[i] }    }

        for (int i=0; i < argsn.length ; i++) {
            System.out.print (argsn[i] + ",-")  }        4

        for (int i =0; i < argsp.length ; i++) {
            System.out.print (argsp[i] + ",-") }
```

(14) *(circled)*