CSCI 360-1   **Assignment 7 – Conditionals and Extended Mnemonics**   **Fall 2017**
50 points

This assignment will give you some more experience working with conditionals and extended mnemonics. Write an assembler program that reads a single number and prints out a message if the number is positive, zero, or negative. Keep a running total of the number of zeros, positive numbers, and negative   numbers.

You will also track the the average of all the numbers, as well as the highest and lowest numbers. The numbers will be in the range of a 4 byte fullword.

Input

An unspecified number of records, each of which contains one number.

The data set you are to use as input is:

//FT05F001 DD DSN=KC02322.CSCI360.DATAFA17(DATA7),DISP=SHR

This data set contains all of the numbers listed below under the heading **Data**.

Output

You will have two headers. The first being:

**** NUMBER REPORT ****

Place this at the top of a new page (before reading the first input record).

The second header being:

**** TOTALS ****

When you are ready for this one, print it at the top of a new page (after the loop).

Inside the loop, you will print the NUMBER PROCESSED: line for each number read. The format for these lines is shown below.

Please line up your output exactly as shown below. Notice the single vs. double spacing used.

**** NUMBER REPORT ****

```
 NUMBER PROCESSED:         25 POSITIVE
 NUMBER PROCESSED:          0 ZERO
 NUMBER PROCESSED:         -7 NEGATIVE
 NUMBER PROCESSED:        333 POSITIVE
 NUMBER PROCESSED:         22 POSITIVE
 NUMBER PROCESSED:       -344 NEGATIVE
```

and so on...

**** TOTALS ****

```
   NUMBER OF ZEROS:          1
NUMBER OF POSITIVE:          3
NUMBER OF NEGATIVE:           2
          AVERAGE:        4
          HIGHEST:      25
          LOWEST:     -344
```

Notes

1. Use extended mnemonics for all branches.
2. Document your code! You need a doc box at the top with both names as well as adequate line doc.
3. You may use your own data for testing but please be sure to turn in the assignment with the following numbers listed.

Data

500
23
-45
0
5
-1
324
99999
41
17
0
-2280
-47
888
-35
4
-99
0
-66
100
333
95
-59