Write a MIPS assembly language program to solve the following problem.

For a set of numbers stored in an array, calculate the sum of the positive numbers and the sum of the negative numbers. The program should calculate both sums and store them to memory. Numbers in the array with have a zero value (0) being used to signal the end of data (the zero value is acting as a "sentinel" value).

For example, your .data section for the array values: 10, -5, -30, 15, 20, -1, 0 will be:

```
.data
array: .word 10,-5,-30,15,20,-1,0
posSum: .word 0
negSum: .word 0
```

```
.text
.globl main
main: # MIPS Assembly language program here

    li $v0, 10  # system call to exit the program
    syscall
```

Before you start writing MIPS assembly language, write a high-level language algorithm. THEN, translate it to MIPS assembly language.

You can download the MIPS simulator at: http://sourceforge.net/projects/spimsimulator/files/
For Window’s OS, you will want the PCSpim_9.1.9.zip

You should turn in:
- a print-out of the MIPS assembly language program, e.g., hw6.s from any text-editor (e.g., WordPad)
- a window capture of the PCSpim simulator after running your assembly language program with array values: 10, -5, -30, 15, 20, -1, 0 and the posSum result showing 45 and negSum result showing -36. You can capture this window by (1) right-clicking anywhere in the window to make it the "currently active" window, (2) while holding down the <Alt> key, press the <PrtScn> key to capture the window into the Window’s clipboard, and (3) open some word processor (Word, Open Office, etc.) and paste the image into the document. Add your name to this document before printing it.