1. 1000 0000

1000 1010

The two bits that change are the negative and overflow bits respectively. The overflow is set because the result of the addition can no longer be represented accurately, and the negative bit is set because the added result is negative when represented by 2’s complement numbering system.

1. RM (Register Modify) command is used to change the values of registers, and therefore is the command to use to change the contents of the Program Counter.
2. Using the MM (Memory Modify) command, we could choose a starting address and then input our ASCII values one at a time, pressing return after each entry. Typing a period will stop the MM command. For example:

MM $4020 <return>

5A <return>

61 <return>

63 <return>

68 <return>

. <return>

1. The ASM command is a built-in assembler that will load the beginning address of the program that you specify.
2. The built-in assembler is very basic and limited in many ways. The programming environment has many more features, including the ability to save the program as a .asm file. This file can be reused many times over without having to retype it every time.
3. The program in this lab adds the contents of memory location $4101 to the contents of memory location $4100 and then repeats infinitely until the board resets.