

CS 2734
Lab Quiz 3
Loops in MIPS

_____, _____
Last Name **First Name and Initial**

Question about simple loops in MIPS:

Write a portion of a MIPS program that *uses a loop* to print the numbers **10, 9, 8, 7, 6, 5, 4, 3, 2, 1** on separate lines (10 numbers printed, with a newline after each one).

Notes:

1. This is a closed book exam. (Just do the best you can. If you are unsure about the exact form of an instruction, write something anyway.)
2. You must use a loop to get credit. Your program must print the numbers inside a loop, so that with a tiny change the program would print 20 numbers.
3. You should *not* include the standard beginning and ending involving main.
4. Recall that to print a newline, you can use the following:

```

        addi    $v0, $0, 4      # print_str (system call 4)
        la      $a0, Newl      # address of string
        syscall                      # ask the system to handle this
        .data
Newl:   .asciiz "\n"           # string to print

```

5. To print an integer, you need a **1** in register **\$v0**.