

CMSC 216 Quiz 5 Worksheet

The fifth quiz for the course will be on Tue, Jul 19. The following list provides more information about the quiz:

- The quiz will be a written quiz (no computer).
- Closed book, closed notes quiz.
- Answers must be neat and legible. **You must use pencil.**
- Check the quiz/exam rules at:
<http://www.cs.umd.edu/~nelson/classes/examRules.html>

The following exercises cover the material to be included in this quiz. Solutions to these exercises will not be provided, but you are welcome to discuss your solutions with the TA or instructor during office hours. For this quiz, you are responsible for the following Assembly instructions:

- All data movement instructions (irmovl, rrmovl, rmmovl, mrmovl)
- halt
- labels
- All reading data instructions (rdch, rdint, wrch, wrint)
- Integer instructions (addl, subl, multl, modl)
- Branch instructions (jmp, jle, jl, je, jne, jge, jg)

Exercises

1. What is the difference between Big Endian and Little Endian? Suppose we have the value 0x02143657. How would the value be represented using Big/Little Endian?
2. What is the purpose of the .align directive?
3. Write an Assembly program that reads an integer and prints 1 if the number is odd and 0 otherwise.
4. Write an Assembly program that computes the sum of values between 1 and a number provided by the user.
5. Write an Assembly program that computes the product of values in an array present in memory.
6. Write an Assembly program that updates an array present in memory with the square of each value in the array.