

## **CMSC 131 Quiz 3 Worksheet**

The next quiz for the course will be on Mon, Sep 28. The following list provides additional information about the quiz.

- **Do not post any solutions to this worksheet in Piazza. That represents an academic integrity violation.**
- The quiz will be a written quiz (no computer).
- The quiz will be in lab session.
- Closed book, closed notes quiz.
- Answers must be neat and legible.
- Quiz instructions can be found at <http://www.cs.umd.edu/~nelson/classes/utilities/examRules.html>.
- Make sure you know your section number and your TA's name.
- You must take your quiz in your assigned lab/discussion session and not show up to a random discussion session. We will not grade quizzes taken in the incorrect session.
- **Do not discuss anything about the quiz in Piazza after you take the quiz (in particular the day of the quiz).**

**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 TAs or instructor during office hours. It is recommended that you try these exercises on paper first (without using the computer).

### **Exercises**

1. When do we use a do while?
2. When do we use a for loop?
3. What is short-circuiting?
4. Write a complete program that computes the factorial of a number. For example, factorial of 4 (4!) is 24. Use JOptionPane method for input and output.
5. Write a complete program that prints the sum of odd numbers between min (inclusive) and max (inclusive). The program will read the values min and max and display the sum. You can assume min and max are integer values. Use the Scanner class for input and System.out.println for output.
6. Write a complete program that reads four numbers and displays a histogram based on those numbers. For example, if the user enters 2 5 4 1 the program will display:

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7. Write a complete program that reads a number (greater than or equal to 3) and displays a set of asterisks that resembles letter Z. For example, if the user enters 5 the set of asterisks will be:

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  *
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