CMSC 131 Quiz 2 Worksheet

The next quiz for the course will be on Mon, Sep 21. 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.
- 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.

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. Define a symbolic constant that represents PI (3.14).

2. Write a program that reads three integer values and determines whether they represent an increasing sequence. Use the Scanner class for input and output.

3. Write a program that asks the user for a password value; the expected value is “terps”. If the user provides the expected value, the program will print the message “Access Granted”; otherwise the program will print the message “Access Denied.” Use JOptionPane class methods for input and output.

4. Write a program that reads two integer values (using the Scanner class) and prints ‘Y’ if the first value is divisible by the second, and ‘N’ otherwise. Rewrite the program using the JOptionPane.showInputDialog method for input, and the JOptionPane.showMessageDialog method for output.

5. Write a program that decides which kind of parking permit to grant based on the following criteria:
   - {freshman} → “Zone Purple”
   - {sophomore} → “Zone Red”
   - {junior} → "Zone Green"
   - {senior or age > 40} → “Zone Gold”

Use the Scanner class for input and output.