CMSC 131 Quiz 1 Worksheet

The first quiz for the course will be on Thu, Feb 13. The following list provides additional information about the quiz.

- The quiz will be a written quiz (no computer).
- Closed book, closed notes quiz.
- The quiz will be in lab (at the end) with a maximum duration of 20 minutes.
- Answers must be neat and legible.
- Quiz instructions can be found at http://www.cs.umd.edu/~nelson/classes/utilities/examRules.html.
- Regarding Piazza - Feel free to post questions in Piazza regarding the worksheet and possible solutions to problems.
- 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.
- You don't need to write **public static void main(String[] args) { };** when we ask you to write code. You will provide the code that goes inside of the method. Also, you don't need to know any import statements.
- We use the Gradescope system to grades your quizzes after they have been scanned. For the system to recognize your work, you **need to print your name (uppercase) and student id.** The following is an example of the information you need to provide in your quiz:

FIRSTNAME, LASTNAME (PRINT IN UPPERCASE):

MARY, SMITH

STUDENT ID (e.g. 123456789):

123456789

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 instructors during office hours. It is recommended that you try these exercises on paper first (without using the computer). For input use the Scanner class and for output System.out.println.

Exercises

1. You need to be familiar with the following examples of academic integrity violations:

   - Hardcoding of results in a project assignment. Hardcoding refers to attempting to make a program appear as if it works correctly (e.g., printing expected results for a test).
   - Using any code available on the internet/web or any other source. For example, using code from Sourceforge.
   - Hiring any online service to complete an assignment for you.
   - Sharing your code or your student tests with any student.
   - Using online forums (other than Piazza) in order to ask for help regarding our assignments.

2. You need to be familiar with information provided at:

   http://www.cs.umd.edu/class/resources/academicIntegrity.html

3. What is the good faith attempt for a project? Would you fail the class if you don't satisfy a good faith attempt? See syllabus for information regarding good faith attempts.

4. Which of the following are valid (will compile) Java identifiers?

   House house #dog cat% blue-elephant 12depth $height

5. What is bytecode? If we compile a class called **Ex.java**, what is the name of the file with bytecode?

6. Order the following types based on their relative size.

   short int byte

7. What is the default type (float or double) for the value 4.5?

8. What is an appropriate name (using camel case) for a class representing a computer?

   Computer computer COMPUTER

9. What is an appropriate name (using camel case) for a variable representing tire pressure?

   tirePressure TirePressure tire_Pressure tire_pressure TIRE_PRESSURE TIRE_Pressure

10. Write a Java Program that displays the following message:

    The directory for Thomas "tommy" project is \fs\www\myproject

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

12. 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."

13. Complete the program below. The program reads an integer value and prints the square if the value if greater than 0; otherwise the message "Invalid value" will be printed. Notice the quotes must surround the words Invalid value. For example, if the user enters 5, the program will print 25.

    public class Square {
    **   public static void main(String[] args) {**

14. Complete the program below that computes tuition cost. The program will read the cost per credit (in dollars) using the message "Enter cost per credit: " and the number of credits using the message "Enter number of credits: ". If the number of credits is larger than or equal to 18, the cost per credit will be reduced by half. The program will display the amount to pay using the message "Please pay: " followed by the amount. Remember that the Scanner methods nextDouble() and nextInt() allow you to read a double and an integer, respectively. The following are examples of running the program. Underlined text represent input provided by the user.

```
Enter cost per credit: 30.50          Enter cost per credit: 2
Enter number of credits: 2            Enter number of credits: 18
Please pay: 61.0                       Please pay: 18.0

public class ComputeTuition {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
```

Previous Quizzes (and Solutions)

http://www.cs.umd.edu/class/spring2020/cmsc131/quizzes/Quiz1131Spring19.pdf
http://www.cs.umd.edu/class/spring2020/cmsc131/quizzes/Quiz1131Spring19Soln.pdf
http://www.cs.umd.edu/class/spring2020/cmsc131/quizzes/Quiz1131Fall19.pdf
http://www.cs.umd.edu/class/spring2020/cmsc131/quizzes/Quiz1131Fall19Soln.pdf