

## **CMSC 131 Quiz 1 Worksheet**

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. You need to be familiar with the information provided at:  
<http://www.cs.umd.edu/~nelson/classes/resources/writingComputerPrograms/>
5. Which of the following are valid (will compile) Java identifiers?  
**House house #dog cat% blue-elephant 12depth \$height**
6. What is bytecode? If we compile a class called **Ex.java**, what is the name of the file with bytecode?
7. Order the following types based on their size.  
**short int byte**
8. What is the default type (float or double) for the value 4.5?
9. What is an appropriate name (using camel case) for a class representing a computer?  
**Computer computer COMPUTER**
10. What is an appropriate name (using camel case) for a variable representing tire pressure?  
**tirePressure TirePressure tire\_Pressure tire\_pressure TIRE\_PRESSURE TIRE\_Pressure**
11. Write a Java Program that displays the following message:  
**The directory for Thomas "tommy" project is \fs\www\myproject**
12. Define a symbolic constant that represents PI (3.14).
13. 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."
14. Complete the program below. The program reads an integer value and prints the square if the value is 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) {
```

15. 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 number of credits: 2  
Please pay: 61.0
```

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

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