

CMSC 131 Quiz 1 Worksheet

The first quiz for the course will be on Fri., Feb 9. 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 lecture. Show up to your lecture session.
- Answers must be neat and legible.
- Regarding Piazza - Feel free to post questions in Piazza regarding the worksheet and possible solutions to problems.
- We use the Gradescope system to grade 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 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. Which of the following are valid Java identifiers?

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

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

short int byte

3. What is the default type (float or double) for the value 4.5?
4. What is an appropriate name (using camel case) for a class representing a computer?

Computer computer COMPUTER

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

tirePressure TirePressure tire_Pressure tire_pressure TIRE_PRESSURE TIRE_Pressure

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

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

7. Define a symbolic constant that represents PI (3.14).
8. 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."
9. 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.
10. 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. You don't need good variable names, but you need good indentation.

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

11. 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);
```

Old Quizzes are here: <https://www.cs.umd.edu/class/spring2024/cmsc131/quizzes/oldQuiz1.zip>