# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Seat # \_\_\_\_

**Homework 3 – On Lecture 3 – Java Essentials**

**(100 points) Hours:**

**The homework is to be turned in as a *PAPER AND PENCIL i.e., HANDWRITTEN ANSWER ONLY!(with your terminal #!)* in the first ten minutes of the due date class.**

**Also an implementation in NetBeans Java is ALSO required, thus you are to submit the ZIPPED project to BB and download it in 232 PGH the first 10 minutes of class. Hardcopy with screenshots of the running program and the SOURCE CODE are also needed.**

**TURNING IN THE HOMEWORK INSTRUCTIONS will be PENALTY OF -10 points.**

**I UNDERSTAND THAT TURNING ANOTHER’s WORK IN is CHEATING.**

**I UNDERSTAND THAT ANY KIND OF DISSEMINATION of this WORK is CHEATING.**

**I CERTIFY THAT THE HOMEWORKs SOLUTIONs ARE MY OWN WORK!**

**?**

**X**

**V**

**SIGNATURE:**

**HOMEWORK CHECKLIST (YOU MUST GRADE YOURSELF!):**

**TA check, is Homework3.doc & Homework3.zip**

**in BB?**

1. **DID TURN IN HOMEWORK INSTRUCTIONS? \* -10 points**
2. **1.? 40 points**
3. **2.? 5 points**
4. **3.? 5 points**
5. **4.? WORD E + H 50 points**
6. **Homework3 JAVA.zip NOT submitted to BB? \* -50 points**
7. **Homework3 JAVA.zip NOT running in class? \* -50 points**

* **If NOT, do not enter anything in the box!**

TA **grade or check**

**PLEASE ENTER YOUR GRADE IN THIS BOX:**

**By Hand?**

**I understand that if the .zip file is NOT in BB and I did not check the BOX, I will get a ZERO for the Homework!**

**Screenshot?**

**1.** (40 pts)(**BY HAND**)

a. (4 pts)What is the output produced by the following lines of program code?

int n = 3;

n++;

System. out. println(" n == " + n);

n--;

System. out. println(" n == " + n);

**ANSWER:**

b. (4 pts)Write a complete Java program that reads in a line of keyboard input containing two values of type int ( separated by one or more spaces) and outputs the two numbers as well as the sum of the two numbers.

**ANSWER:**

c. (4 pts)Write a complete Java program that reads in a line of text containing exactly three words (separated by any kind or amount of whitespace) and outputs the line with spacing corrected; that is, the output has no space before the first word and exactly one space between each pair of adjacent words.

**ANSWER:**

d. (4 pts)Suppose your code creates an object of the class Scanner named keyboard ( as described in this chapter). Write code to change the delimiter for keyboard to a comma followed by a blank.

**ANSWER:**

e. (4 pts)What is the output produced by the following?

String verbPhrase = " is money";

System. out. println(" Time" + verbPhrase);

**ANSWER:**

f. (4 pts)What is the output produced by the following?

String test = "abcdefg";

System. out. println( test. length());

System. out. println( test. charAt( 1));

**ANSWER:**

g. (4 pts)What is the output produced by the following?

String test = "abcdefg";

System. out. println( test. substring( 3));

**ANSWER:**

h. (4 pts)What is the output produced by the following?

System. out. println(" abc\ ndef");

**ANSWER:**

i. (4 pts)What is the output produced by the following?

System. out. println(" abc\\ ndef");

**ANSWER:**

j. (4 pts)What is the output produced by the following?

String test = " Hello Tony";

test = test. toUpperCase();

System. out. println( test);

**ANSWER:**

**2.** (5 pts) (**BY HAND**):

What is the output produced by the following code?

int key = 1;

switch ( key + 1)

{

case 1: System. out. println(" Apples");

break;

case 2: System. out. println(" Oranges");

break;

case 3: System. out. println(" Peaches");

case 4: System. out. println(" Plums");

break;

default: System. out. println(" Fruitless");

}

**ANSWER:**

**3.** (5 pts) (**BY HAND**):

What is the output produced by the following code?

int n = 10;

do

{

System. out. println( n);

n = n - 3;

} while ( n > 0);

**ANSWER:**

**4.** (50 pts) **UML Class Diagram** (**MICROSOFT WORD; Textual Analysis – TA Copy&Paste&Rearrange**).

Time:Class

**Write a program that outputs the number of hours, minutes, and seconds that corresponds to 50391 total seconds. The output should be 13 hours, 59 minutes, and 51 seconds. Test your program with a different number of total seconds to ensure that it works for other cases.**

Time1: seconds: int

Time2: minutes: int

Time3: hours: int

Time4: SECONDS\_PER\_MINUTE: final int

Time5: MINUTES\_PER\_HOUR: final int

Time6: Time()

Time7: Time(int s)

Time8: getSeconds()

Time9: getMinutes()

Time10: getHours()

Time11: equals(Time)

Time12: toString()

**In Netbeans AS HOMEWORK3 build and run.**

a. (10 pts)Draw the **UML** Class Diagram (**MICROSOFT WORD**):

**ANSWER:**

|  |
| --- |
| Time |
| - seconds: int  - minutes: int  - hours: int  - SECONDS\_PER\_MINUTE: final int  - MINUTES\_PER\_HOUR: final int |
| + Time()  +Time(int s)  + getSeconds()  + getMinutes()  + getHours()  + equals(Time)  + toString() |

b. (40 pts) **Create** **in Netbeans 6.9.1 HOMEWORK3 Project build and run.**

Insert as the answer a Project screenshot (3 windows, please see the template at the end of this document).

Please make sure you submit the **HOMEWORK3 ZIPPED NetBeans 6.9.1 project to Black Board!**

Video Link:

<http://media.pearsoncmg.com/aw/aw_savitch_abjava_4/videos/video1_2/video.html>

**ANSWER:**



