CSC110 Assignment 2

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Due Date: 2/25/16

Use the following file header comment at the beginning of each program.

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\*File Name:

\*Purpose:

\*Programmer:

\*Last Updated Date:

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Submission instructions:

1. *Write the programs in an IDE, such as JGrasp, and save them as .java files. Test your programs and fix errors.*
2. *Copy and paste your final version of the programs to* ***ONE*** *MS Word document and save it as a .docx file.*
3. *Please submit both your source codes (.java files) and the Word document to the Blackboard. I will test the programs by using the source codes (.java file) and make comments on the Word document from the grading area.*

*Please note that no late homework will be accepted.* ***You submission will not be graded unless they have both files submitted.*** =====================================================================

1. Write a program that converts a Fahrenheit temperature to the equivalent Celsius temperature. To convert Fahrenheit to Celsius, subtract 32 from the Fahrenheit temperature and multiply by 5/9.
2. Write a program that converts a Celsius temperature to the equivalent Fahrenheit temperature. To convert Celsius to Fahrenheit, the multiply the Celsius temperature by 9/5 and plus 32.
3. Write a program to convert time duration to the equivalent total number of seconds. For example 1 hour 28 minutes and 42 seconds is equivalent to 5322 seconds. Display it on the screen.
4. Write a program that converts the number of seconds into the equivalent amount of time as a combination of hours, minutes, and seconds. For example, 9999 seconds is equivalent to 2 hours, 46 minutes and 39 seconds.
5. To compute the sine of a double precision value use this method:

Math.sin( value )

The value is in radians (not degrees.) The cosine is computed using

Math.cos( value )

Again, value is in radians. Write a program that:

* Computes the sine of 0.5236 radians and saves it in a variable.
* Computes the cosine of 0.5236 radians and saves it in another variable.
* Computes the square of each those two values (use the variables), adds the two squares, and saves the result (in a third variable.)
* Writes out the three variables.

The output statement should be something like:

System.out.println("sine: " + sinx + " cosine: " + cosx + " sum: " + sum );