

Assignment 04 – Java Concepts, Chapter 04: Fundamental Data Types  
Due: Wednesday, Feb 11.

Exercise P4.14 pg 158

Write a program that reads two times in military format (0900, 1730) and prints the number of hours and minutes between the two times. (See page 148 for information on reading input). Below is a sample run with user input printed in color:

```
Please enter the first time: 0900
Please enter the second time: 1730
8 hours 30 minutes
```

Extra credit if you can deal with the case where the first time is later than the second time. Note: make certain your program works before attempting the extra credit – you may wish to make a back-up before 'improving' your code. Below is a sample run with user input printed in color:

```
Please enter the first time: 1730
Please enter the second time: 0900
15 hours 30 minutes
```

Implement a class `TimeInterval` whose constructor takes two military times. The class should have two methods `getHours` and `getMinutes`. The class should use a constant to convert hours to minutes.

Your main class should be called `ElapsedTimePrinter`.

Put a copy of your source code (`TimeInterval.java` & `ElapsedTimePrinter.java`) into a **.zip** file named **CS125-A04-YOURNAME.zip**, replacing **YOURNAME** with your actual first and last name. Note: if you have trouble creating zip files in the labs, refer to my tutorial on my Fall 2008 CS104 course page.

Upload the **.zip** file to Moodle.

The following rubric will be used for grading:

Description	Points
Correct filename(s) are used	1
<code>TimeInterval</code> constructor	1
<code>TimeInterval</code> <code>getHours</code> & <code>getMinutes</code>	2
<code>TimeInterval</code> has a constant for conversions	1
<code>ElapsedTimePrinter</code> gets user input	2
<code>TimeInterval</code> class & methods are fully documented	5
Source code compiles without errors	3
Program executes	1
Program output is correct	4
<b>TOTAL POSSIBLE POINTS:</b>	<b>20</b>
<b>Extra credit</b>	<b>1</b>