**Laboratory in1278LR Introduction to Programming with Java**
**Delft University of Technology, Faculty EWI, Software Engineering Research Group.**
**Group = 3; Remainder = 2**

**Assignment 1**
Create a new directory with the name Assignment1.
Use this directory to save all programs that you will create as part of this assignment.

**General**
In each of the following assignments a formula is given.
It is the intention that you construct a complete program around that particular formula.
The program should input values for the data in the formula from the keyboard using the Standard Input Stream.
The program should output the result of the calculation to the screen.
Please refer to Figure 2.4 of the book for an example.
Hints:

- Use Java-constants where applicable.
- Please adhere to the Java conventions w.r.t. capitalization and indentation.
- Give a motivation for your choice of data types.
- Check your results using a calculator (just to be sure).

Have all your assignments be graded by the student assistant.

**Part 1**
Assume a car travels at a speed of 90 km/hr and the driver applies the brakes to uniformly decelerate at a rate of 1.2 m/s$^2$. Use the fact that *distance* = $s = V_o.t - (1/2)\, d\, t^2$ where $V_o$ is the initial speed of the car, $d$ is the deceleration. How far has the car traveled after 10 seconds?

**Part 2**
In 1627, Manhattan Island was sold to Dutch settlers for approximately $24. If the proceeds of that sale would have been deposited in a Dutch bank paying 5% interest, what would be the principal balance at the end of 2009?

**Part 3**
The sum of an arithmetic sequence (rekenkundige reeks) is given by *sum = (n/2) (2*a + (n-1)* d)* where *n* is the number of terms to be added, *a* is the first number and *d* is the difference between successive numbers. Calculate the sum of the <u>even</u> integers from 100 till 1000.

CP, 26-2-2009, version 1.0.