# **Assignment #1**

**Due date: Jan. 28th, 12:00 pm**

## **Question 1**:

Write a program that reads an integer between **0** and **1000** and adds all the digits in the integer. For example, if an integer is **932**, the sum of all its digits is **14**.

*Hint*: Use the **%** operator to extract digits, and use the **/** operator to remove the extracted digit. For instance, **932 % 10 = 2** and **932 / 10 = 93**.

Here is a sample run:



## **Question 2**:

*Physics: finding runway length*

Given an airplane’s acceleration a and take-off speed v, you can compute the minimum runway length needed for an airplane to take off using the following formula:



Write a program that prompts the user to enter v in meters/second (m/s) and the acceleration a in meters/second squared (m/s2), and displays the minimum runway length. Here is a sample run:



## **Submission:**

### **Submit two source code files (.java).**one file for question 1 and another one for question 2

### **DO NOT zip them**

### **DO NOT submit anything else or you will lose marks.**

### **DO NOT submit .class files,**

### **DO NOT submit your editor's backup files (e.g. .java~ or .bak), etc.**

**Evaluation**

Your submission will be evaluated based on the following criteria:

**Efficient Code:** Program uses variables where and only when necessary; program doesn't define variables that are never used, nor does it use too many variables for unnecessary tasks; program logic is written concisely and is not cluttered with unnecessary tasks.

**Functionality:** Program functions according to specifications.

**Programming Style:** Proper indentation and spacing; use of comments; coding conventions regarding variable/method/class names followed (up to 3 marks deduction).

**Other:** All instructions regarding submissions and program specifications have been followed; submission was completed and submitted as requested in a timely fashion; techniques discussed in class have been used.