Lab Exercise / Assignment 1 Basic Java Programming

1. As the U.S. spends Dollars, the Korean currency is Won (KRW), and there are 50,000 Won, 10,000 Won, 5,000 Won, and 1,000 Won bills. If the price of the product is 152,365 Won and the amount less than 1,000 Won is discounted, write a Java program to see how many minimum bills are required. Your output should be look like Figure 1 below.

```
Fiftythousand x 3
Tenthousand x 0
Fivethousand x 0
Onethousand x 2
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Total Count: 5
Total Amount: 152000 Won
Discount: 365 Won
```

Figure 1 Output of the First Program

2. The equation for the position of equivalent-speed kinetic objects is as follows.

$$x(t) = \frac{1}{2}at^2 + v_0t + x_0$$

where $x(t)$ is the position, a is acceleration, t is travel time, v_0 is initial velocity, and x_0 is the initial position. Assume that you try to drop an object from a standstill at an altitude of 1,000 meters. Complete the Java code and obtain the same result as the output example. (There is no resistance in free fall, and the acceleration of gravity is -9.81m/s^2.

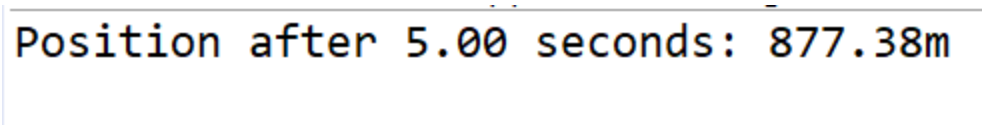

Figure 2 Output of the Second Program

Due date: By 11:59PM, 02/09/2020