Section 003 of Calculus Lab 2,   Name (clearly printed): _____
Quiz of March 4, 2003
10:00-10:15 a.m.   Student Identification Number: _____

For this quiz, you are to print the Input statement in **InputForm** (not **StandardForm**) for MATHEMATICA and the corresponding Output statement that MATHEMATICA gives in order to solve Problems 1 and 2 below.

As your first Input statement, write your Student Identification Number with a decimal point after it and set `id` equal to it. Thus, if your Student Identification Number were 123-45-6789, you would write and evaluate `id = 123456789.` as your first line of Input (with the decimal point). Then, your first Input and Output would look somewhat like

```
In[1]            id = 123456789.

Out[1]           id = 1.23456789 x 10^8
```

You may have fewer digits in the Output and it may look like `id` = 1.2345×10^8.

Problem 1. Print a MATHEMATICA Input statement (in InputForm) as well as the corresponding OutPut statement for the purpose of using **DSolve** to find the general solution of

$$\frac{d^2y}{dt^2} - 5\frac{dy}{dt} + 6\,y = \frac{id}{10^6}\,t^2.$$

Input:

Output:

Problem 2. Print a MATHEMATICA Input statement (in InputForm) as well as the corresponding OutPut statement for the purpose of using **DSolve** to find the solution of the initial value problem

$$\frac{dy}{dt} + 7\,y = \frac{id}{10^8}\,e^{(5t)} \quad \text{and} \quad y(3) = 7.$$

Input:

Output:

(End of Quiz)