

Section 004 of Calculus Lab 2,
Quiz of March 7, 2003
10:00-10:15 a.m.

Name (clearly printed): _____

Student Identification Number: _____

The first three digits of your Student Identification Number specify an integer. As your first Input statement to be evaluated, set `id` equal to the that integer written **WITHOUT** a decimal point. Thus, if your Student Identification Number were 123-45-6789, you would write and evaluate `id = 123` (**WITHOUT** a decimal point) as your first line of Input. Then, your first Input and Output would look like

```
In[1]          id = 123
```

```
Out[1]         123
```

Problem 1. Have MATHEMATICA evaluate the Input statement that is given in terms of typewriter characters by

```
DSolve[ y''[t] - 8 y'[t] + 15 y[t] == id*Cos[7*t], y[t], t] //Simplify
```

and print the corresponding Output that MATHEMATICA gives in the following space.

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 all of the solutions of the differential equation

$$\frac{d^2y}{dt^2} - 60 \frac{dy}{dt} + 851 y = id \cdot \sin 13t.$$

Input:

Output:

(End of Quiz)