Third Exam, copy b (makeup for Ethan Hebert)
Friday, March 13, 2009, 1:30PM, MDD 201

This exam is closed book. Make sure your name is on all pages. Show all work, and show it in a logical and organized manner. The first problem is worth 90 points, and the second problem is worth 10 points.

1. Find the solution to the initial value problem

$$y'' + 4y' + 4y = te^{-2t}, \quad y(0) = 0, \quad y'(0) = 1.$$

2. Write $\cos(3t) + i\sin(3t)$ in terms of e^{3it} and e^{-3it}.