Handout 23
E84: Fall '07
11/14/07

E84: HW9 (Due Monday, November 19th – NO LATE DAYS ALLOWED)

Graded problems:

1. (5 points) FoEE 5.59 (just part c)

2. (5 points) FoEE 5.61 (just part a)

3. (5 points) Using Laplace Transforms, find the solution for $\frac{d^2x(t)}{dt^2} + 6\frac{dx(t)}{dt} + 8x(t) = 2u(t)$;
where $v(0) = 1$ and $v'(0) = -2$

4. (10 points) FoEE 5.73

5. (10 points) FoEE 5.84 (just find $v(t)$) (Hint: Notice the initial conditions, see example 5.23 for something similar)

6. (5 points) FoEE 5.103 (Use the fact that in 5.49b from HW8, we already found the transfer function to be: $\frac{V_2}{V_1} = \frac{1}{3s^2 + 4s + 1}$.)

Optional problems:

7. (0 points) FoEE 5.57

8. (0 points) FoEE 5.69

9. (0 points) FoEE 5.77