

University of Portland
School of Engineering

EE 261
Summer 2012
A. Inan

Homework # 3

(Assigned: Tuesday, June 5, 2012)
(Due Tuesday, June 12, 2012, 12:40p.m.)

These problems are assigned from Introduction to Electric Circuits by Dorf/Svoboda (8th edition):

- P 7.2-8. Voltage-current relationship of a capacitor.**
- P 7.2-12. First-order capacitive circuit.**
- P 7.2-13. First-order capacitive circuit.**
- P 7.4-3. Capacitors connected in parallel and in series.**
- P 7.4-15. Equivalent capacitance.**
- P 7.5-12. First-order inductive circuit.**
- P 7.5-14. First-order inductive circuit.**
- P 7.7-5. Inductors connected in parallel and in series.**
- P 7.7-7. Inductors connected in parallel and series.**
- P 8.3-13. A first-order *RL* switching circuit.**
- P 8.3-17. A first-order *RL* switching circuit.**
- P 8.6-4. Unit-step functions.**
- P 8.6-9. Step response of a first-order *RC* circuit.**
- P 8.6-14. Step response of a first-order *RL* circuit.**
- P 8.6-22. Step response of a first-order *RC* circuit.**
- P 8.6-26. Step response of a first-order *RL* circuit.**

Please use the following guidelines for your homework solutions:

- 1) On the first sheet, at the top, indicate that this is EE 261/Summer 2012/HW #3 Solutions and provide your name somewhere on that sheet where the grader can easily see it.
- 2) Solve each problem on a separate sheet unless there is a solution which is very short.
- 3) Do not use the back of the sheets unless you have to.
- 4) Staple your solutions in the above order before you turn them in.

Please turn in your homework on time. The solutions for each homework assignment will be provided as a separate handout on the due date.