Submit for grading only problems 3, 4, 7, and 10.

Reminder: the final exam will be held in the usual classroom at 4:00 am on March 21. No notes or books will be allowed except for the inside covers of the textbook and a math handbook. (Not a math textbook, but rather a handbook with such things as tables of integrals. I will also bring a CRC math handbook for general use, but realistically it shouldn’t be needed.) I will post a practice exam on the web page, and I will include on your exam the same set of equations as you will find on the first page of the practice exam.

3. Problem 7.3 on Page 291. Relationship between resistance and capacitance. This is straightforward if you make use of Gauss’ law (in integral form), Ohm’s law (Eqns. 7.3 and 7.4), and the definition of capacitance.
4. Problem 7.38 on Page 333. This is easy if you use the results from Example 8 of Chapter 3 and you assume that $a \ll d$ and that the plates are very wide compared with $d$.
5. Problem 7.42. Superconductor.
7. Problem 7.8 on Page 300. A square loop moving in the field from a wire.