

**University of Colorado's
Upper Division Electricity & Magnetism materials**

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This homework question collection was constructed over the course of four semesters of a transformed junior-level Electricity and Magnetism course on electro- and magneto-statics. They appear in a variety of textbooks, referenced below. Many of them are basically textbook problems, slightly disguised, or tweaked. We tried to add elements of explanation, sense-making, estimation or approximation, real-world connections, multiple-representations, whenever possible. Developers include Steven Pollock and Stephanie Chasteen.

Solution manuals from D.J. Griffiths' text are easily available on the web, which was one reason for at least changing the problems enough to make a little more challenging for students to simply "look up" the answer.

Not all these homework questions were used in our courses. If the problem was used in one of our courses, there are sometimes detailed instructor notes, including statistics on student performance on each homework problem assigned.

The HW Solutions are only available by writing to us directly and asking for complete course materials. This is to prevent students from accessing the solutions and assessments.

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Most homework questions are referenced with regards to the text from which they were taken. Here is the list of texts consulted for this project:

1. D.J. Griffiths "Introduction to Electromagnetism," 3rd Edition (Prentice Hall, New Jersey, 1999).
2. G.L. Pollack and D.R. Stump. "Electromagnetism" (Addison Wesley, San Francisco, 2002).
3. J.R. Reitz, F.J. Milfrd, R.W. Christy. "Foundations of Electromagnetic Theory, 4th edition" (Addison Wesley, Menlo Park, 1993).
4. R. Chabay and B. Sherwood, "Electric and Magnetic Interactions" (John Wiley & Sons, New York, 1995).
5. E.M. Purcell, "Electricity and Magnetism: Berkeley Physics Course Vol 2" (McGraw Hill, New York, 1985).
6. A. Shadowitz, "The Electromagnetic Field" (Dover Publications, New York, 1975).
7. P. Lorrain and D. Corson, "Electromagnetic Fields and Waves" (W.H. Freeman, 1988).

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