

# Week 13 Worksheet

## More Electrodynamics

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**Exercise 1.** A capacitor  $C$  is charged up to a voltage  $V_0$  and connected to an inductor  $L$  in series at time  $t = 0$ .

- a) *Griffiths 7.27*. Find the current in the circuit as a function of time.
- b) Show that the total energy of the configuration is constant at any time  $t$ , and find this constant.