1a) In Griffiths' section 7.2.4, equation 7.29 tells you the work required to build up a current "I" in an inductor "L". What was the related formula (from back in E&M I) for building up (something, what was it again?) in a capacitor, "C"?

b) Griffiths then works out the (very important!) Equation 7.34, which tells you the energy stored in magnetic fields. Griffiths immediately converts that to an equivalent form in the next line, giving a formula for "magnetic energy stored per unit volume". Once again, what would be the analogous formula from earlier in the book, for "electrical energy stored per unit volume"?

2) You cannot "instantly" change the charge on a capacitor plate (and thus, the voltage across it), because it always takes some time to build up or remove charges. This physics statement is consistent with the formula "I = dQ/dt = C dV/dt" (which is simply the time derivative of Q=CV, the standard formula for a capacitor), because a discontinuous change of V (or Q) would require an infinite current.

Look at Eq 7.26 (on p. 313), and tell me what is the equivalent story for an inductor? That is, what is it about an inductor that "cannot instantly change"?

3) Please submit a question you have about the reading assigned for the upcoming class. What seemed hard, was something confusing, what would you like us to spend class time on? If you can't come up with any question, how about a comment - (did anything strike you as interesting?)

(We removed this question to avoid making the preflight too long, but it's worth having students think about:)

Look at Griffiths Eq 7.23 on page 311. Explain, in your own words, what is the difference between "M21" and "M12" in that formula. Why do you think Griffiths calls this result "astonishing" on the next page?