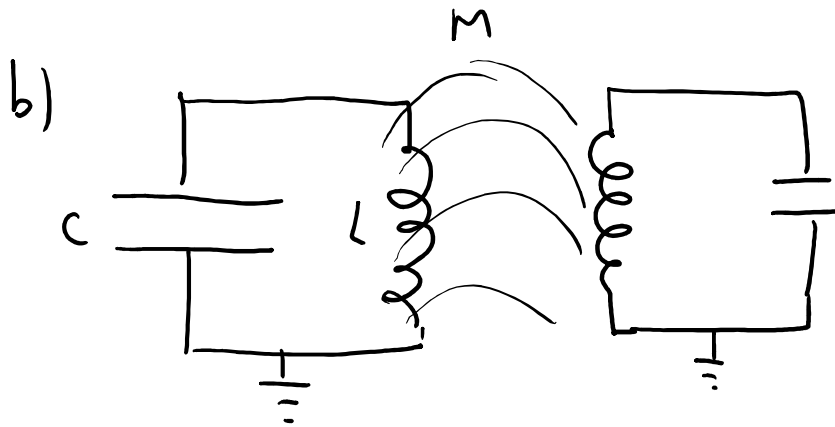
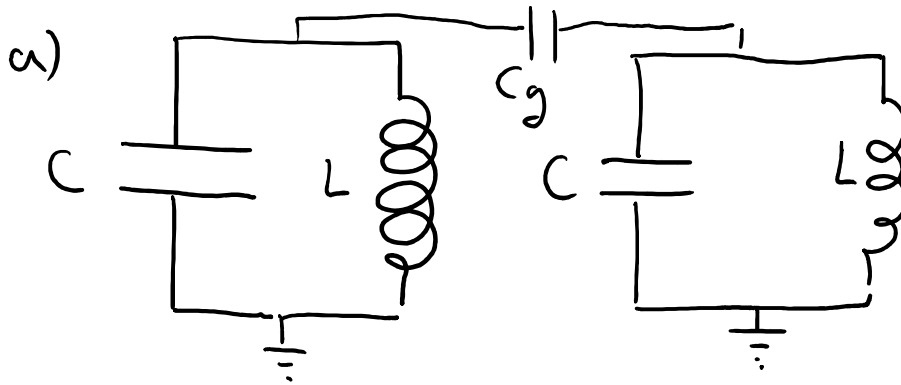


Problem 2

Tuesday, February 9, 2016 3:42 PM

Quantize two coupled LC circuits



$M =$ mutual inductance

A possible approach to it: assume that the flux Φ_a in circuit "a" is proportional to the current I_b along circuit "b"

$$\Phi_a = M I_b, \quad \Phi_b = M I_a$$

and keep terms $\mathcal{O}(M/L)$