

Circuits I – Assignment 08

Capacitors and Inductors

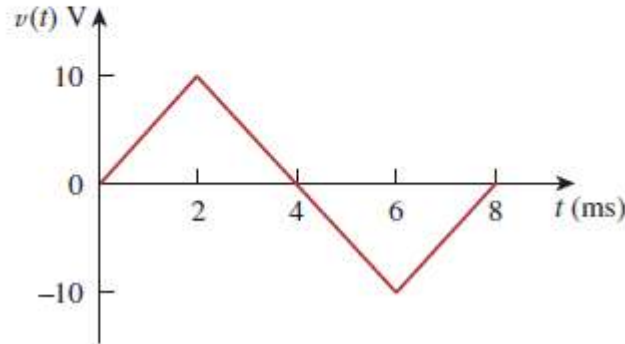
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١. يتم تسليم التمرين محلولا في خلال أسبوع من تاريخ التمرين، و يتم حذف درجتين من التمرين عن كل أسبوع تأخير
٢. يتم التسليم لمعيد المقرر مباشرة
٣. تتم أجابه التمرين في نفس ورق الأسئلة

Q2

6.5 The voltage across a 4- μ F capacitor is shown in Fig. 6.45. Find the current waveform.



Sol 2

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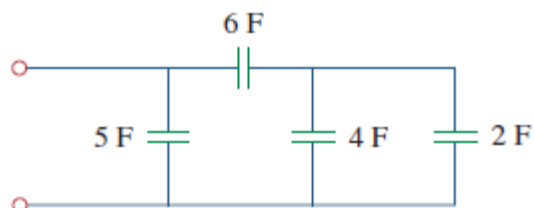
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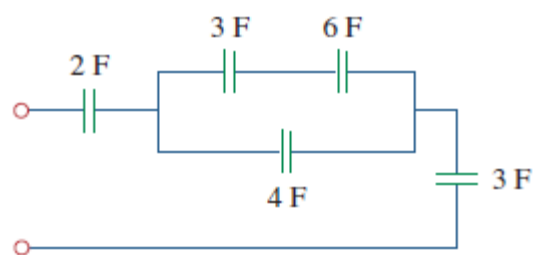
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Q3

6.17 Determine the equivalent capacitance for each of the circuits of Fig. 6.51.



(b)



(c)

Sol 3

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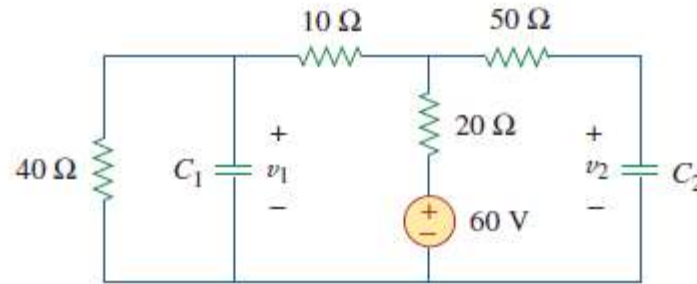
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Q4

6.13 Find the voltage across the capacitors in the circuit of Fig. 6.49 under dc conditions.



Sol 4

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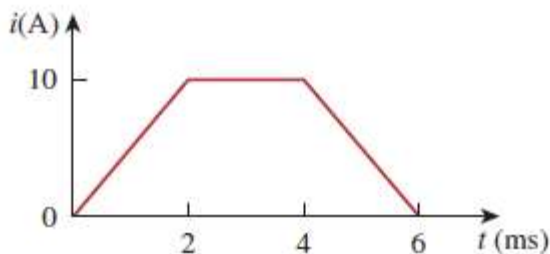
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Q6

6.40 The current through a 5-mH inductor is shown in Fig. 6.66. Determine the voltage across the inductor at $t = 1, 3,$ and 5 ms.



Sol 6

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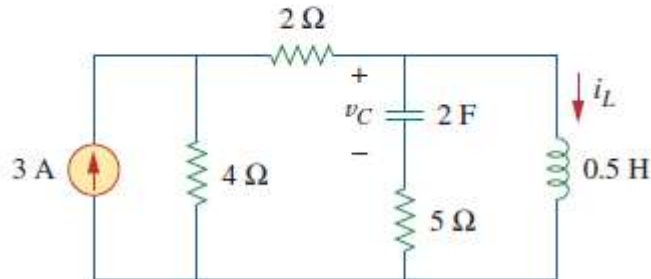
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Q7

6.46 Find v_C , i_L , and the energy stored in the capacitor and inductor in the circuit of Fig. 6.69 under dc conditions.



Sol 7

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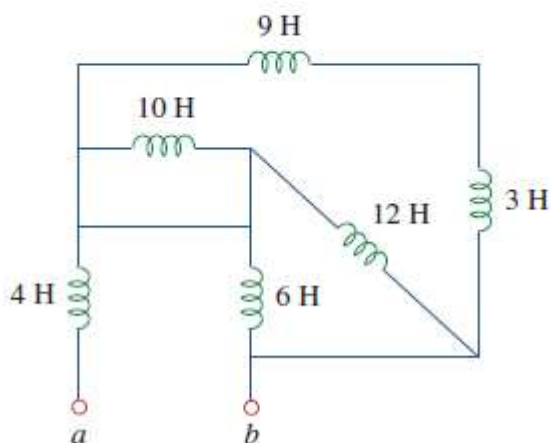
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Q8

6.54 Find the equivalent inductance looking into the terminals of the circuit in Fig. 6.76.



Sol 8

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