

Electrical Circuit (1)

Superposition (week8 class1)

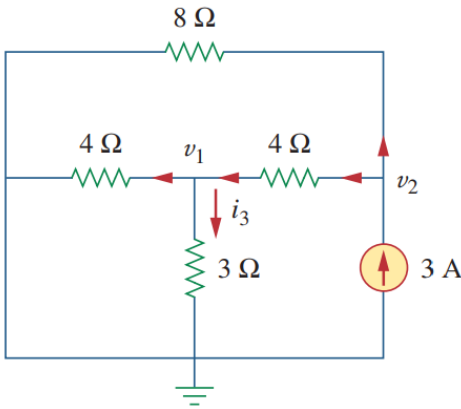
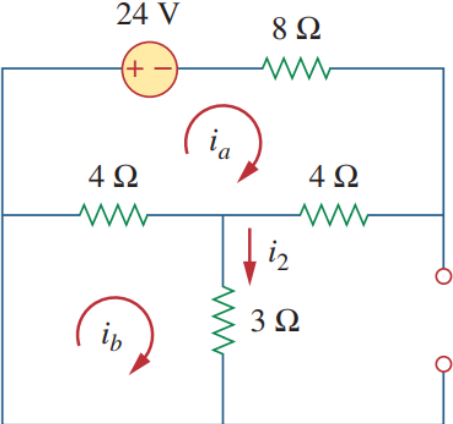
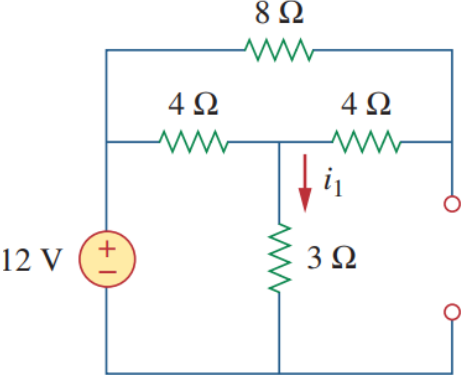
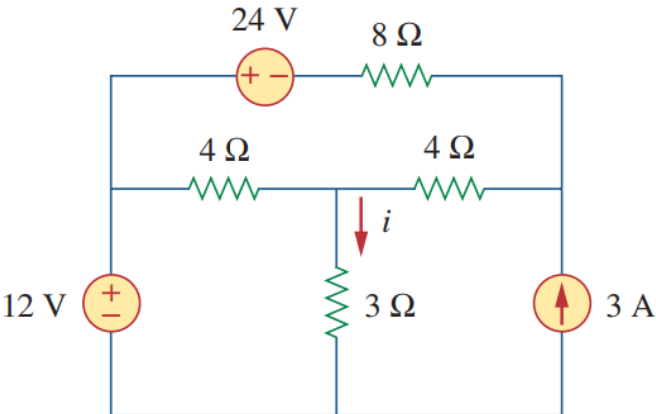
Dr. Akram Al-Mahrouk

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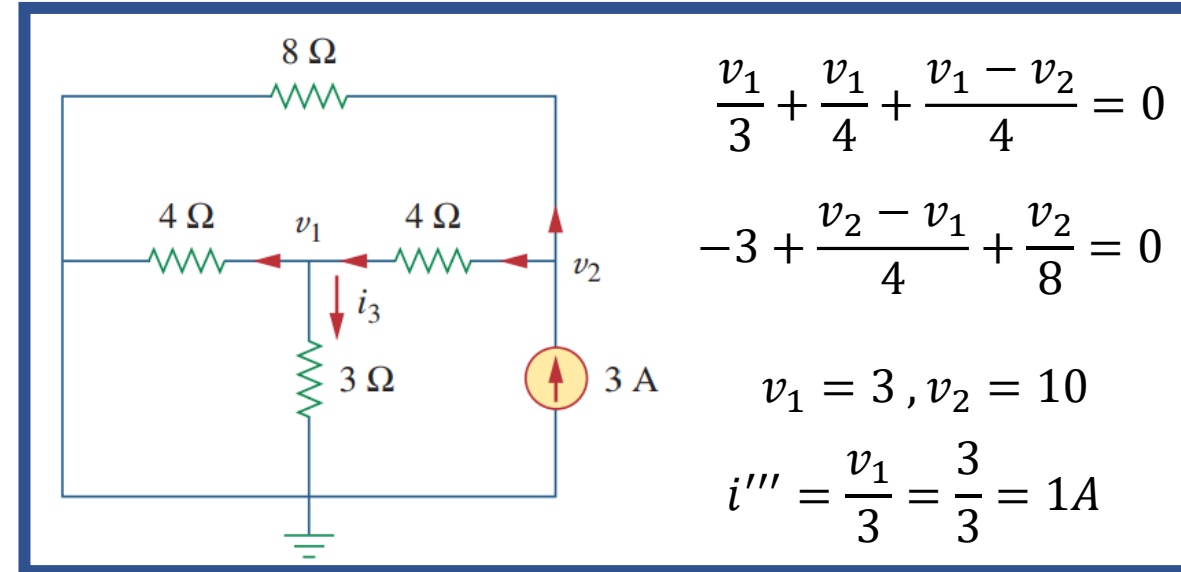
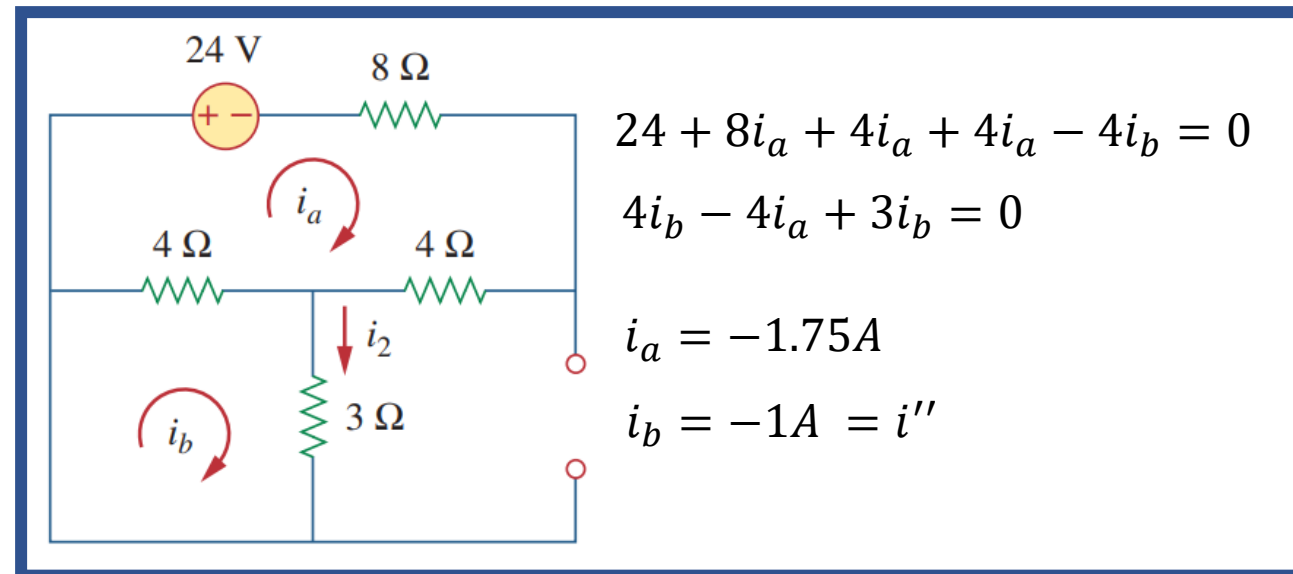
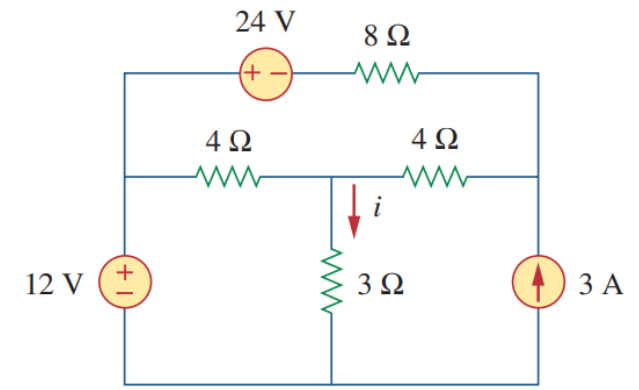
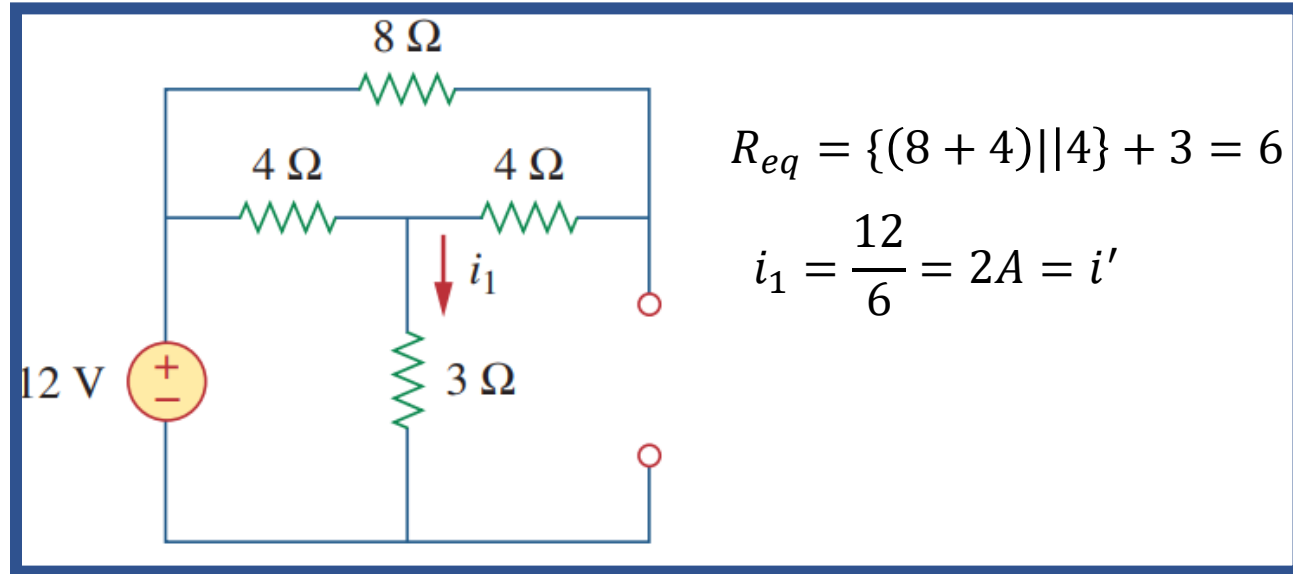
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Superposition

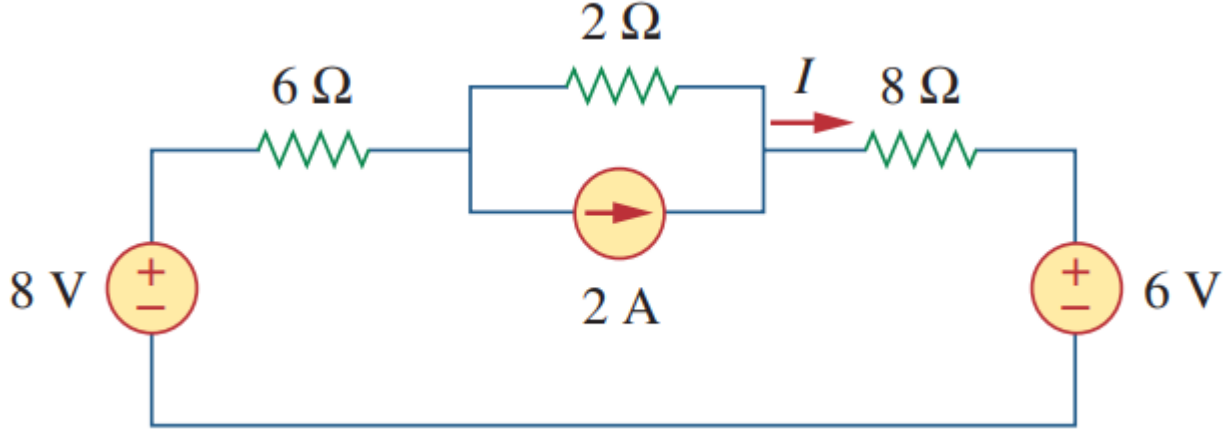


Superposition

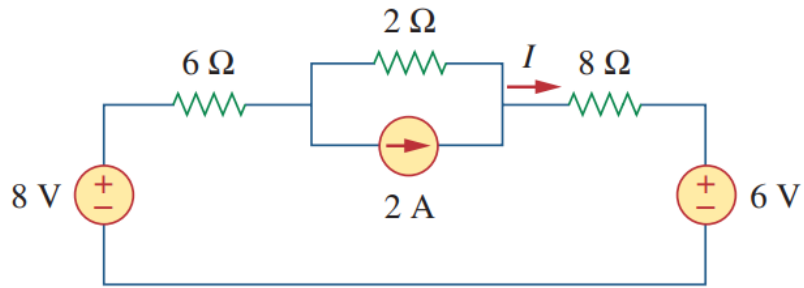
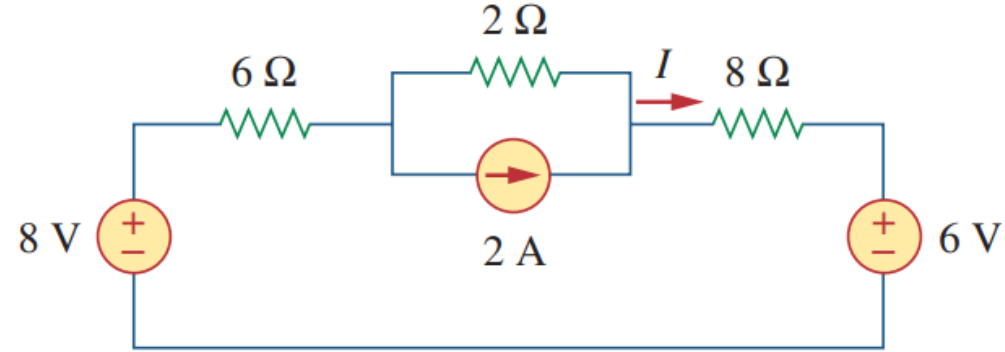


$$i = i' + i'' + i''' = 2 - 1 + 1 = 2A$$

Superposition

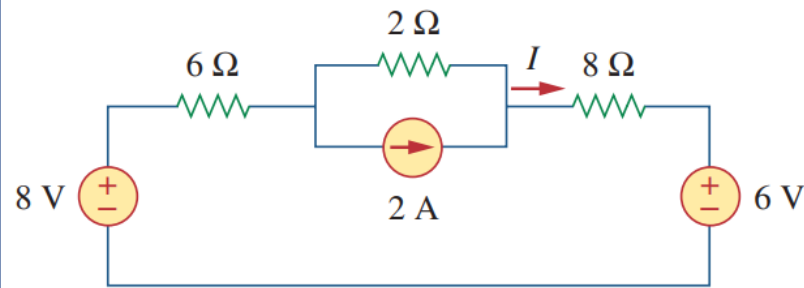


Superposition



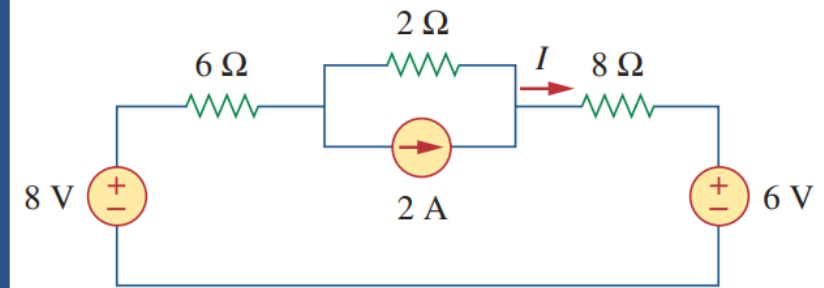
@8V Only

$$i' = \frac{8}{6 + 2 + 8} = 0.5A$$



@2A Only

$$i'' = 2 \frac{2}{6 + 2 + 8} = 0.25A$$



@6V Only

$$i''' = \frac{-6}{6 + 2 + 8} = -0.375A$$

Total Current

$$i = i' + i'' + i''' = 0.5 + 0.25 - 0.375 = 0.375A$$

