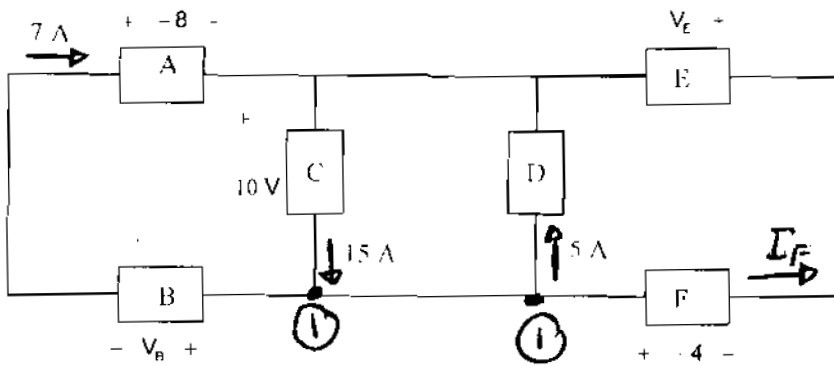


EE 204 - Fall 2009  
Quiz 1

|     |     |    |      |     |
|-----|-----|----|------|-----|
| SEC | SER | ID | NAME | KEY |
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For the Circuit shown above Find the followings :

- The voltages  $V_B$ ,  $V_E$ ,  $I_F$ ?
- The power absorb by the element E ?

(a) KVL on loop (A, C, B)

$$+(-8) + (10) + V_B = 0 \Rightarrow \underline{\underline{V_B = -2V}}$$

KVL on loop (A, E, F, B)

$$+(-8) - V_E - (-4) + V_B = 0 \Rightarrow \underline{\underline{V_E = -6V}}$$

KCL on (D)

$$7 - 15 + 5 + I_F = 0 \Rightarrow \underline{\underline{I_F = 3A}}$$

$$(b) P_E = V_E I_E = (-6)(3) = \underline{\underline{-18W}}$$