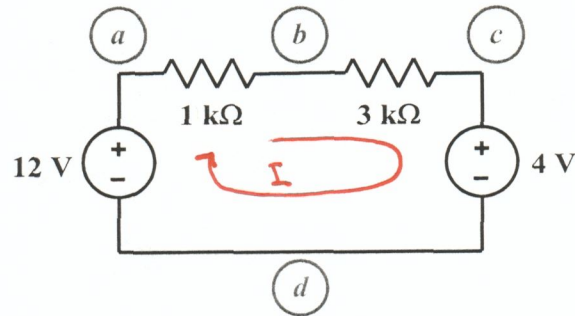


EE 2240
Problem #09

Find V_{bd} and V_{ac} .



Assume current I flows clockwise.
Then

$$-12V + (1k\Omega)I + (3k\Omega)I + 4V = 0$$

$$\Rightarrow 4000I = 8V$$

$$\therefore I = 2mA$$

$$V_{bd} = (3k\Omega)I + 4V$$

$$= 6V + 4V$$

$$= 10V$$

$$V_{ac} = 12V - 4V = 8V$$