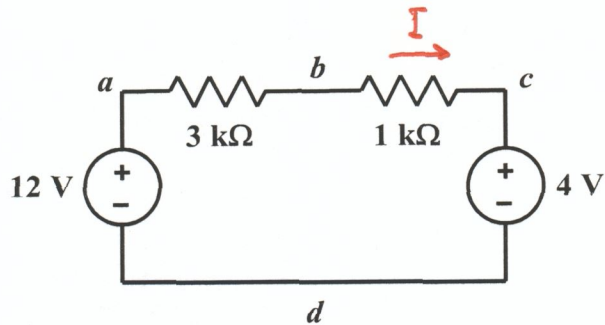


EE 2240
Problem #01

Find V_{bd} .



$$I = \frac{V_{bc}}{1k\Omega}$$

$$\Rightarrow V_{ab} = (3k\Omega) I = 3V_{bc}$$

$$-12 + V_{ab} + V_{bc} + 4 = 0 \quad (\text{KVL})$$

$$\Rightarrow -12 + 3V_{bc} + V_{bc} + 4 = 0$$

$$4V_{bc} = 8V$$

$$V_{bc} = 2V$$

$$V_{bd} = V_{bc} + 4$$

$$= 6V$$