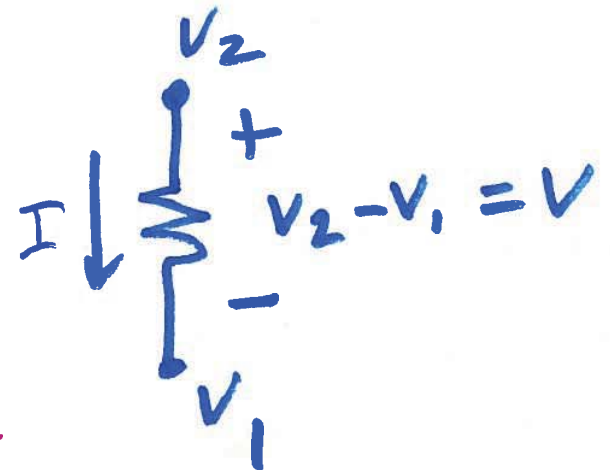
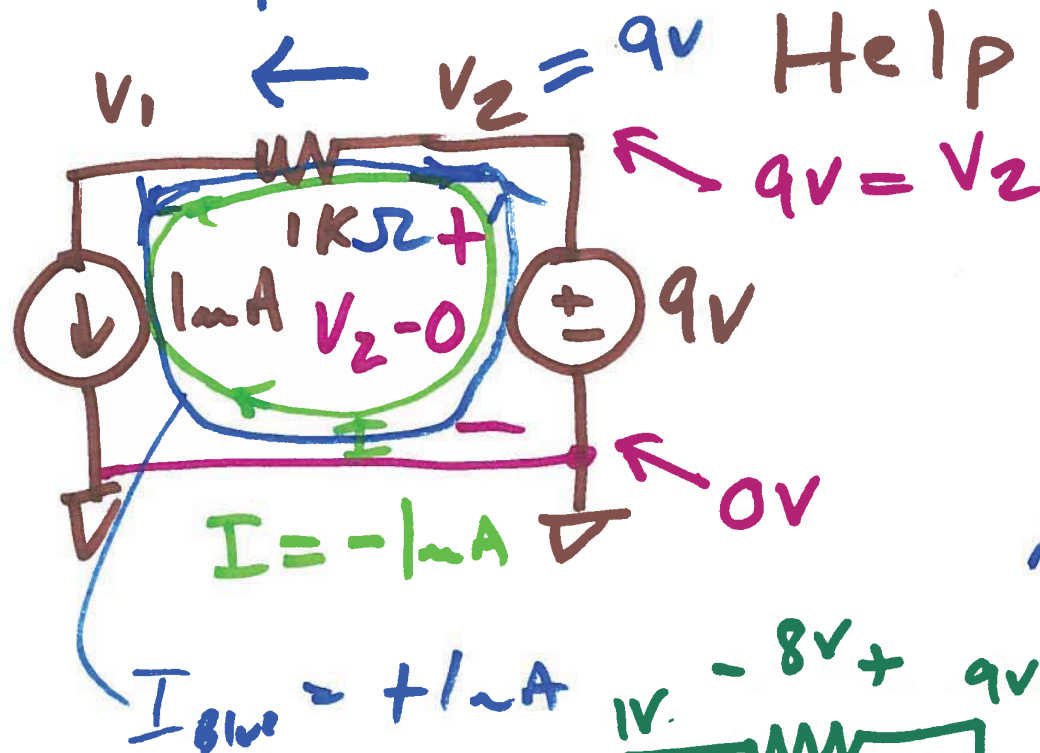


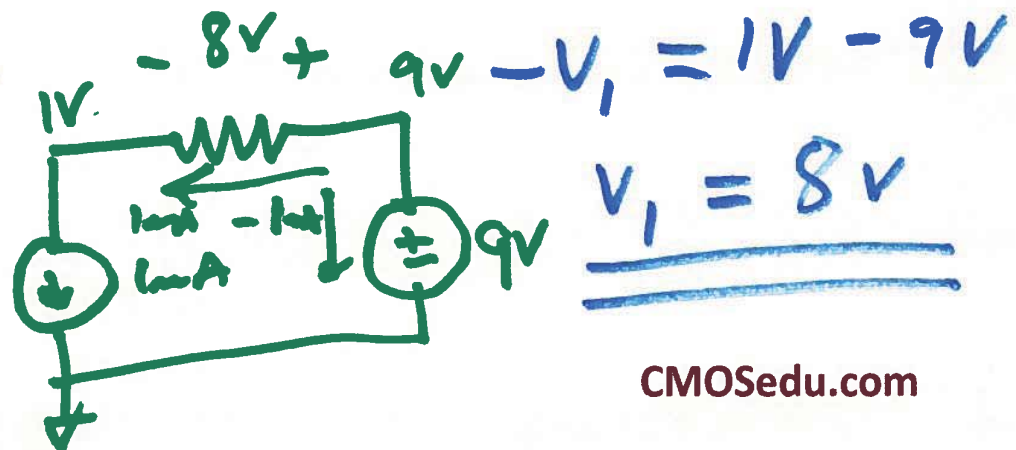
EE 220

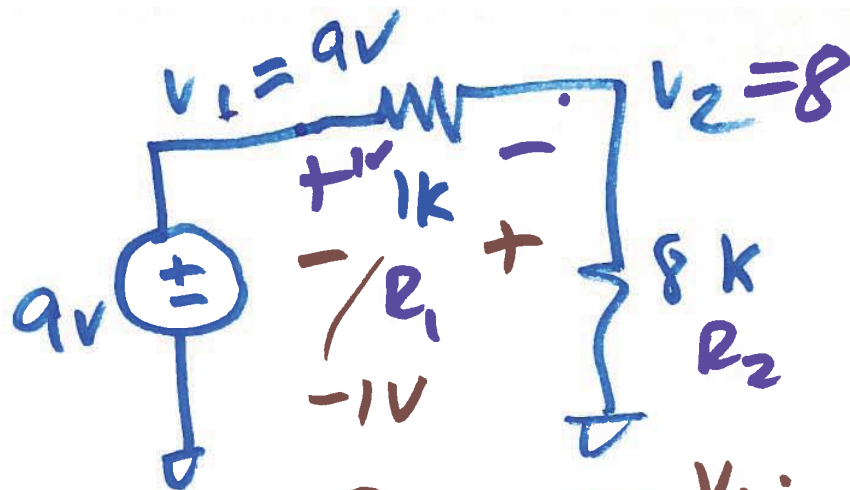
H.W. # 2



$$V = I \cdot R$$

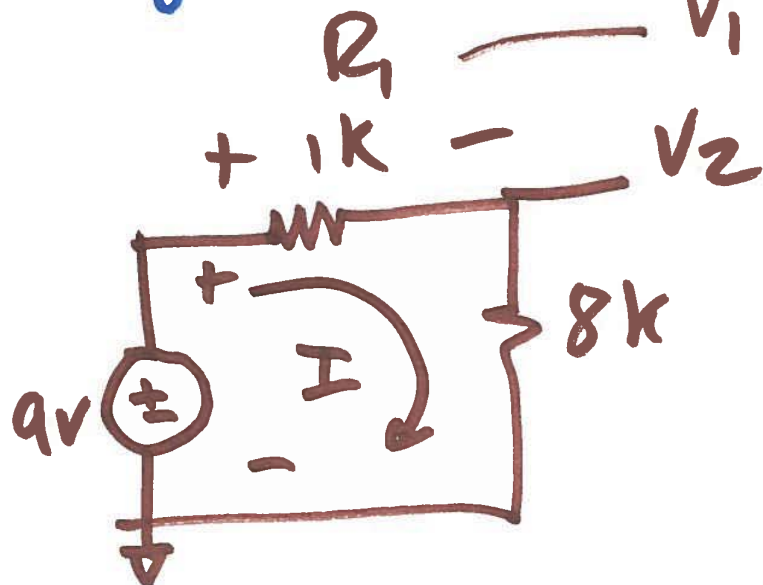
$$9V - V_1 = 1mA \cdot 1k$$





$$V_2 = V_1 \cdot \frac{R_2}{R_1 + R_2}$$

$$= 9 \cdot \frac{8}{1+8} = 8V$$

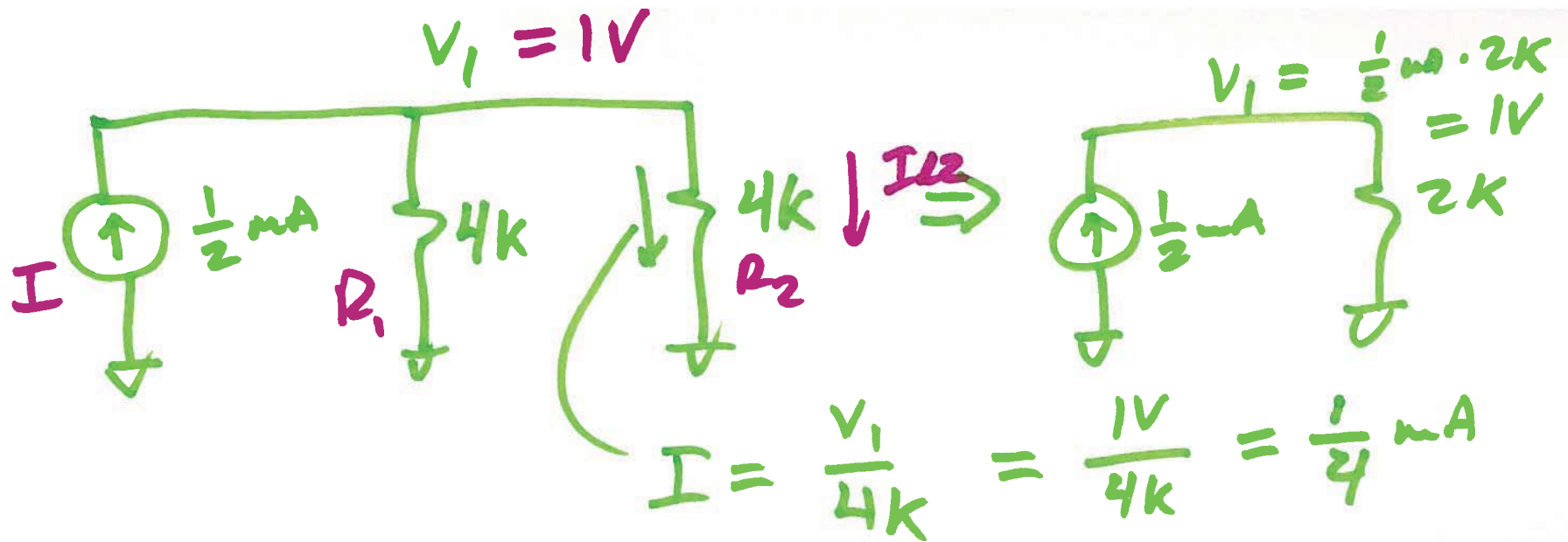


$$V_1 \cdot \frac{R_1}{R_1 + R_2}$$

$$I = \frac{9V}{1k + 8k} = \frac{V_1}{R_1 + R_2}$$

$$V_2 = I \cdot R_2 =$$

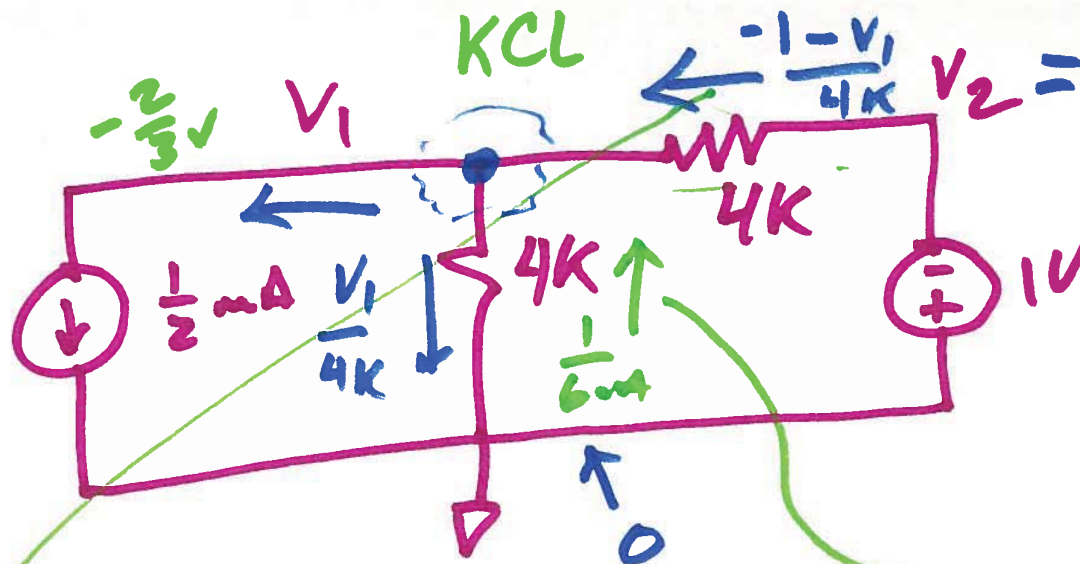
$$V_2 = V_1 \cdot \frac{R_2}{R_1 + R_2} = 8V$$



$$I_{R_2} = I \cdot \frac{R_1}{R_1 + R_2}$$

$$I_{R_1} = I \cdot \frac{R_2}{R_1 + R_2}$$

2)



$$V_2 - 0 = -1$$

$$-0 - V_2 = 1$$

$$V_2 = -1V$$

$$\frac{-1 - (-\frac{2}{3})}{4k}$$

$$\frac{-1 - V_1}{4k} = \frac{V_1}{4k} + \frac{1}{2} \text{ mA}$$

$$\frac{\frac{2}{3}V}{4k} = \frac{\frac{1}{6} \text{ mA}}{4k}$$

$$\frac{\frac{1}{3}}{4k} = \frac{1}{12} \text{ mA}$$

$$-1 - V_1 = V_1 + 2V$$

$$-3V = 2V_1$$

$$V_1 = -\frac{3}{2}V$$

$$\frac{1}{2} \text{ mA} + \frac{1}{12} \text{ mA} = \frac{1}{6} \text{ mA} = \frac{2}{12} \text{ mA}$$

$$\frac{3}{12} \text{ mA} = \frac{1}{4} \text{ mA}$$

