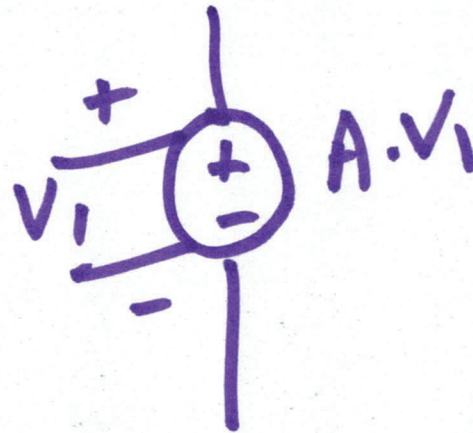
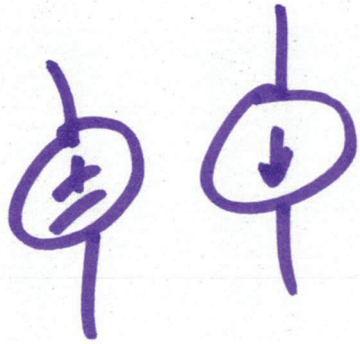


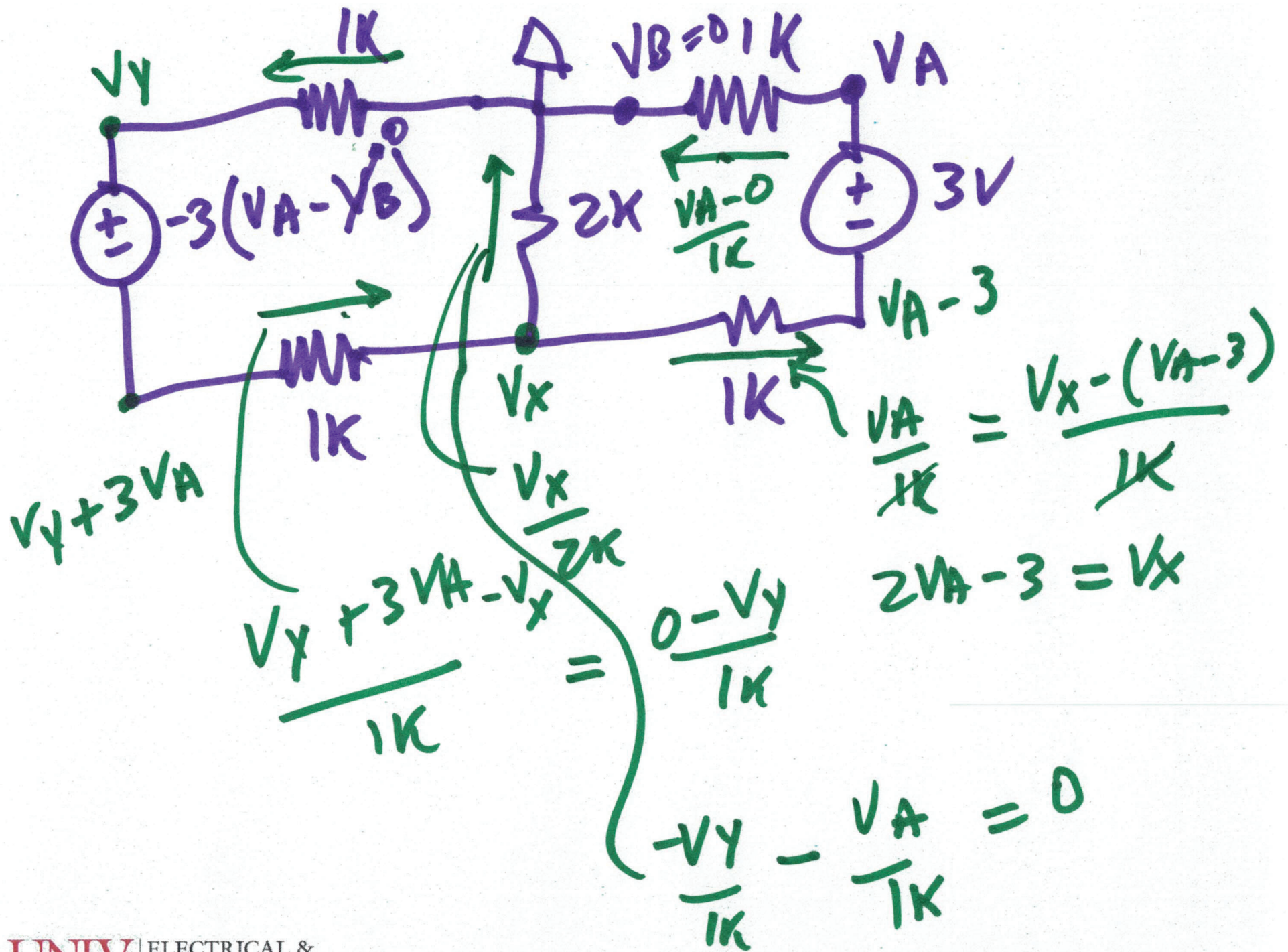
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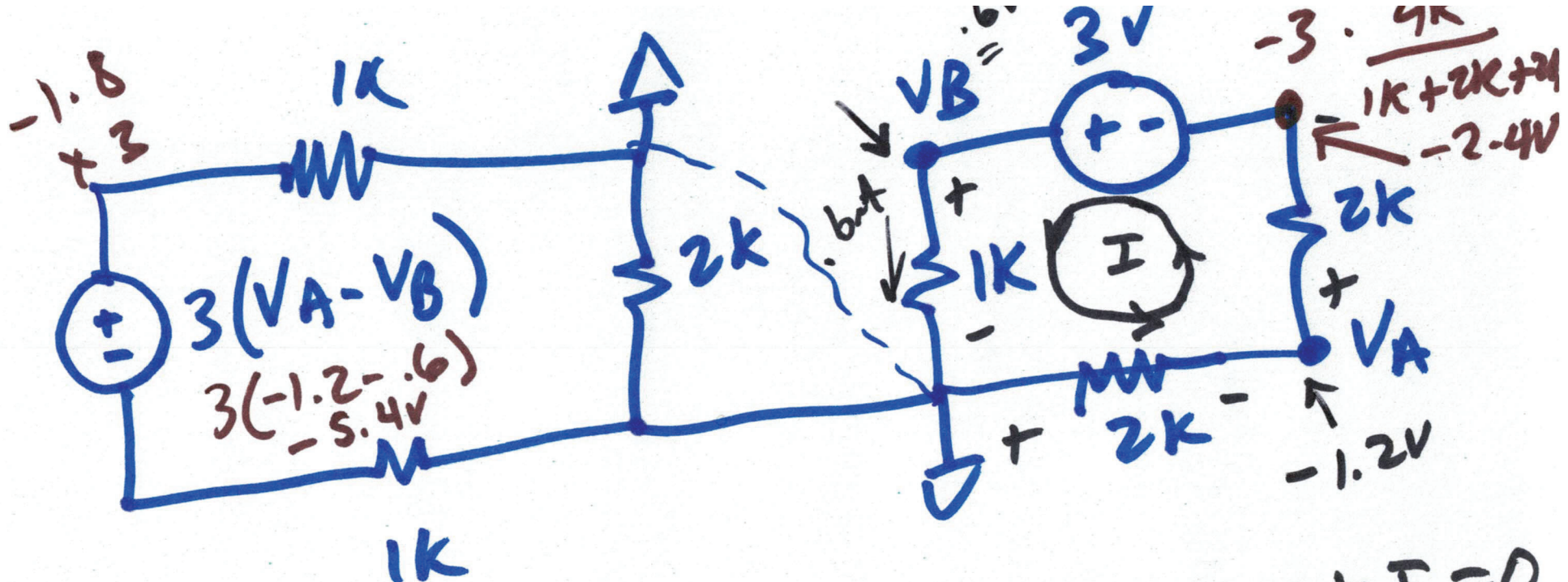
Lecture 3

Dependent source





2)

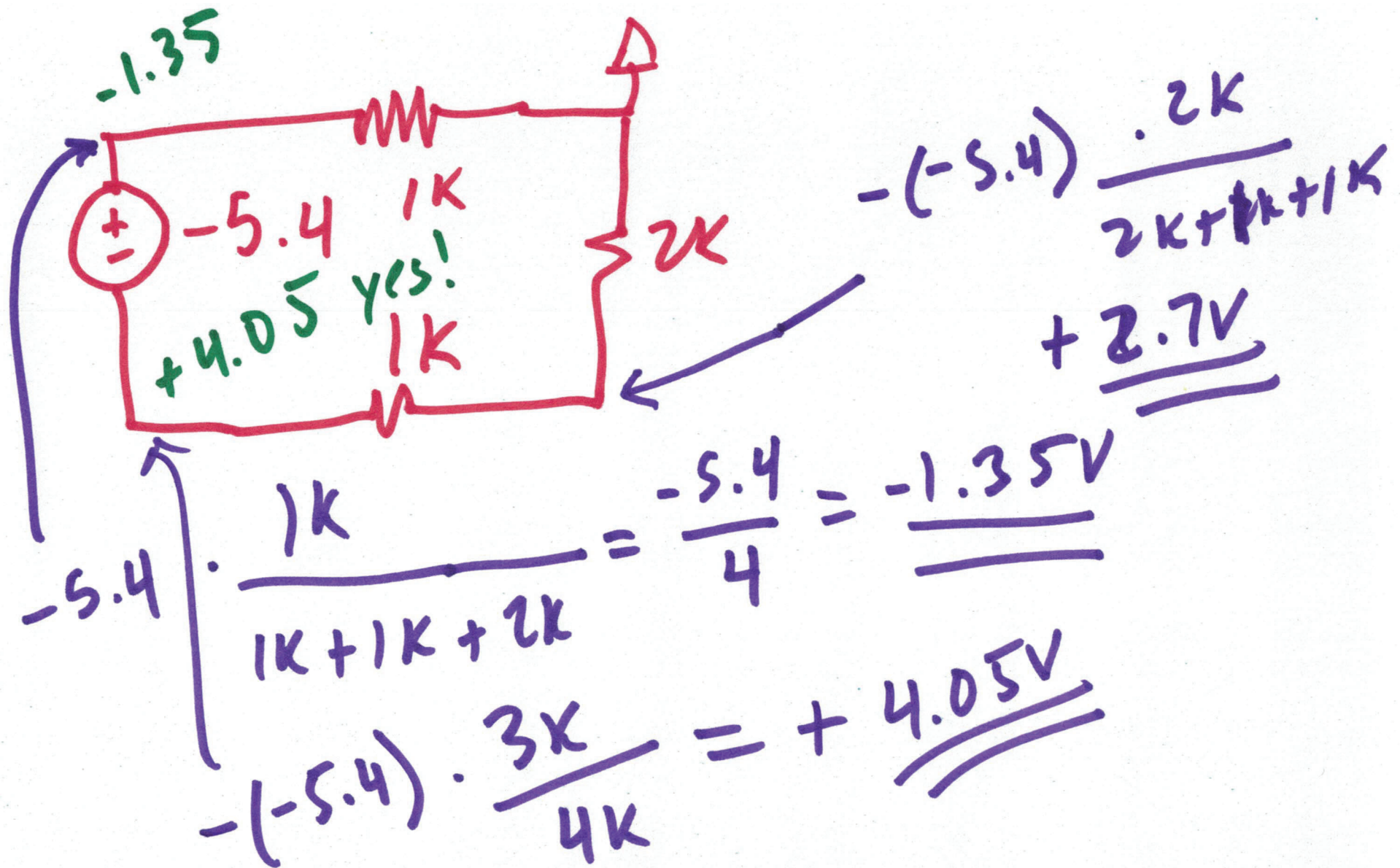


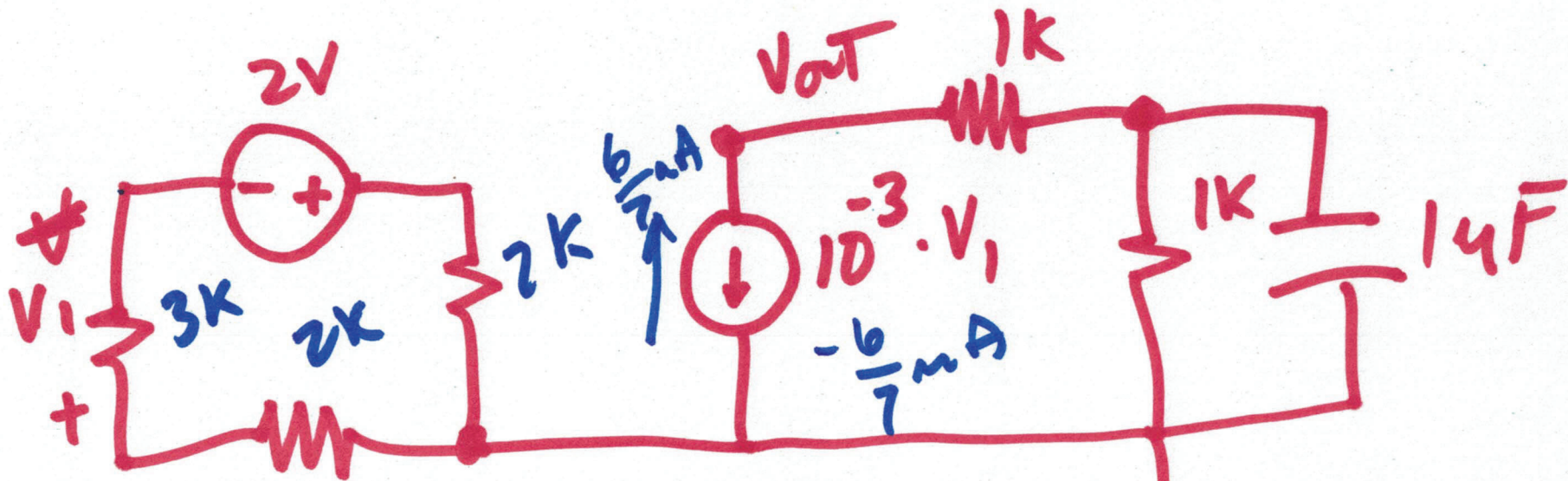
$$1k \cdot I - 3 + 2kI + 2kI = 0$$

$$V_B = 3 \cdot \frac{1k}{1k + 2k + 2k} = .6V$$

$$V_A = -3 \cdot \frac{2k}{1k + 2k + 2k} = -1.2V$$

$$I = \frac{3}{5k} = 0.6mA$$

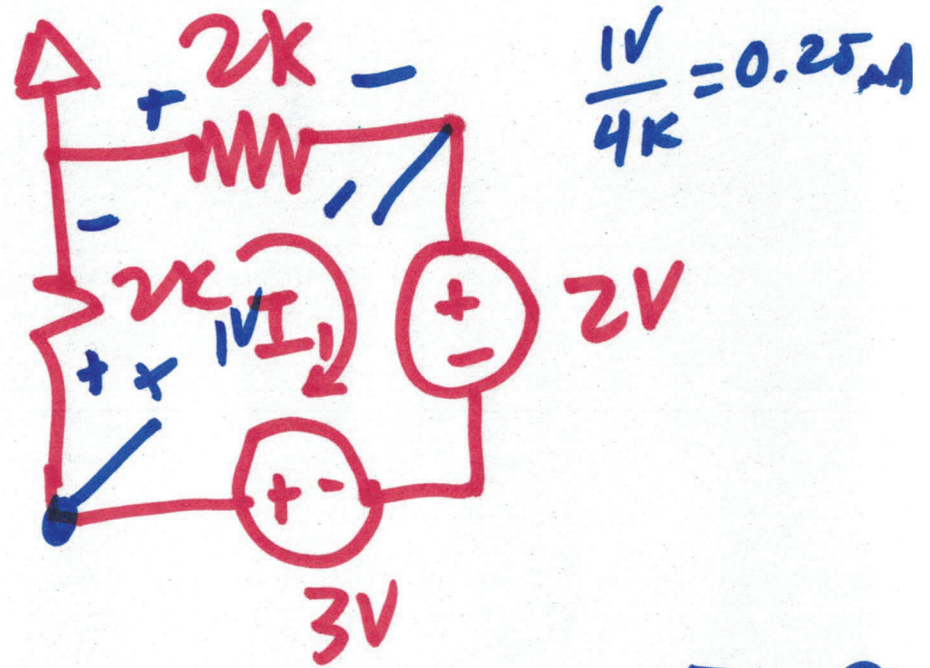
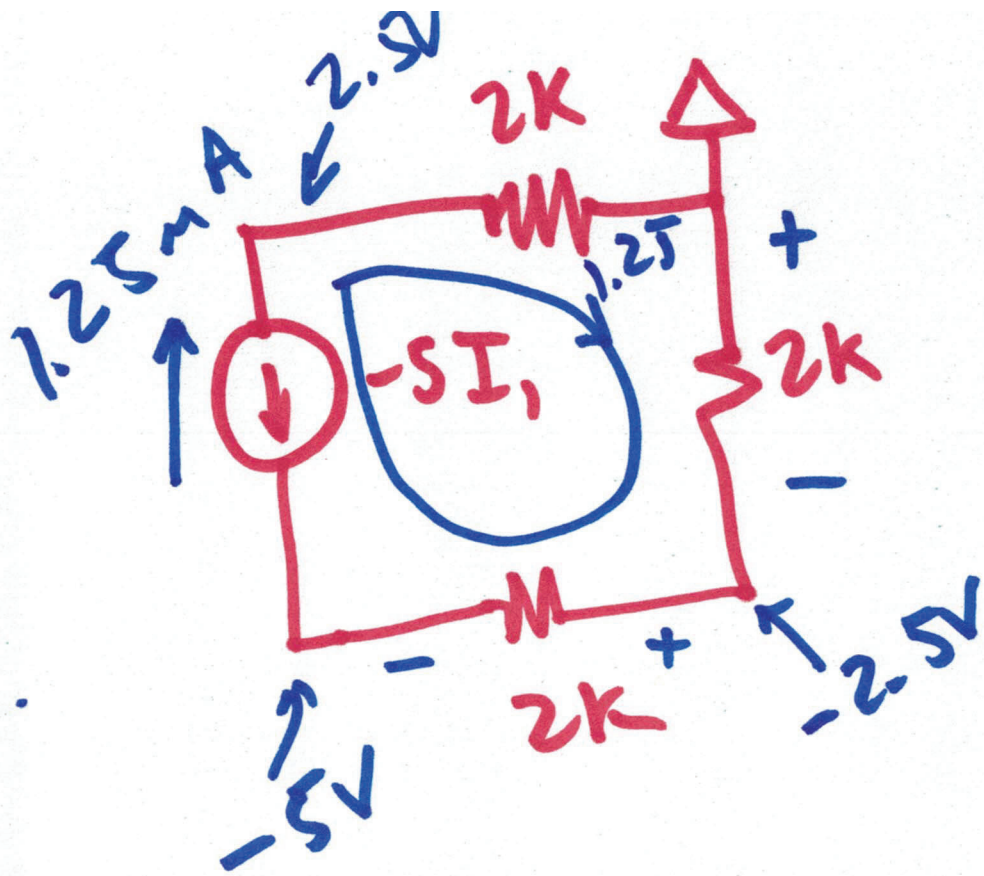




$$V_1 = -2 \cdot \frac{3k}{3k + 2k + 2k} = -\frac{6}{7} \text{ V}$$

$$V_{out} = \frac{6}{7} \text{ mA} \cdot (1k + 1k) =$$

$$V_{out} = \frac{12}{7} \text{ V}$$



$$\frac{1V}{4K} = 0.25mA$$

$$2KI_1 - 3 + 2 + 2KI_1 = 0$$

$$4KI_1 = 1$$

$$I_1 = 250\mu A$$