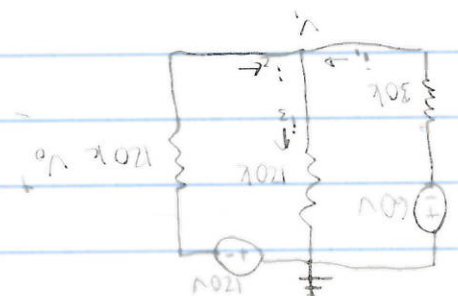


Rishabh Singh

09/24/2017

4655 41972

EECS 215 HW3

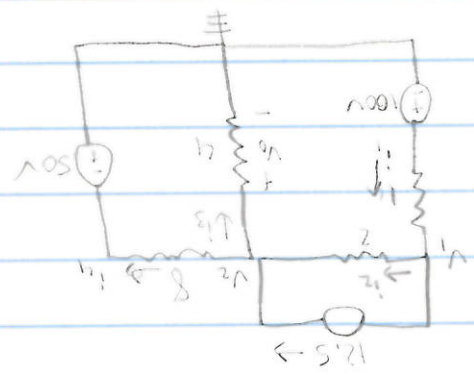


$$i_1 + i_2 = i_3$$

$$\frac{V_1 - 60}{30k} + \frac{V_1 - 120}{120k} = \frac{V_1}{120k}$$

$$V_1 = 60V$$

$$V_o = V_1 - 120 = -60V$$



$$i_1 = 12.5 + i_2$$

$$100 - V_1 = 12.5 + V_1 - V_2$$

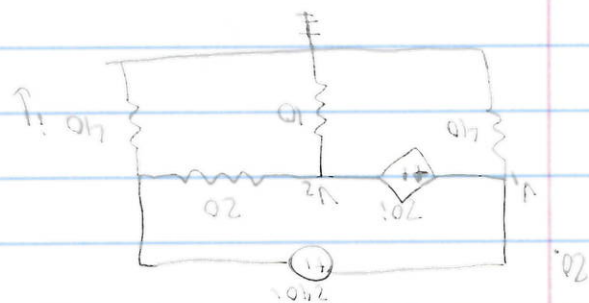
$$\frac{1}{1} = \frac{2}{2}$$

$$V_1 = 75V, V_2 = 50V$$

$$i_2 + 12.5 = i_3 + i_4$$

$$\frac{V_1 - V_2}{2} + 12.5 = \frac{V_2}{2} + \frac{V_2 + 50}{8}$$

$$V_2 = 50V$$

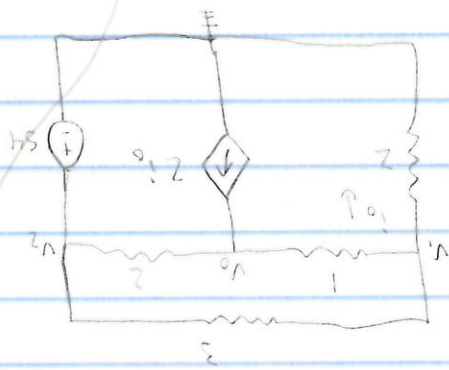


$$V_1 + V_0 - V_2 = \frac{2}{V_0 - V_1} = \frac{2}{V_2 - V_0} = \frac{3}{V_2 - V_1}$$

$$\frac{1}{V_1} = \frac{1}{V_0 - V_2} + \frac{3}{V_2 - V_0} + \frac{2}{V_2 - V_1}$$

$$V_0 = 114V$$

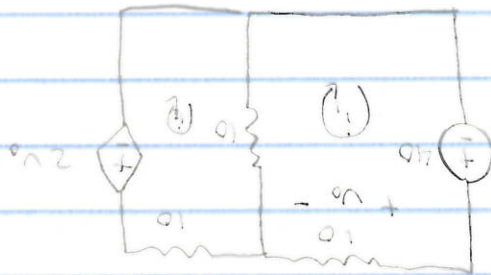
$$I_0 = 36A$$



$$I_1 = 1.6A, I_2 = -0.8A$$

$$10I_1 - 40 + (I_1 - I_2)10 = 0$$

$$10I_2 + 2(10I_1) - (I_1 - I_2)10 = 0$$



$$V_0 = I_2 \cdot 120000 = -60V$$

$$I_2 = -0.0005A$$

$$I_3 = I_1 + I_2$$

$$120 + 120000I_2 + I_3(120000) = 0$$

$$60 + 300000I_1 + I_3(120000) = 0$$

