

EE 2240
Problem #07

Write the following set of equations in matrix form.

$$V_1 = 5I_y, \quad V_3 = 100, \quad V_4 = \frac{V_y}{5}, \quad \frac{V_2 - V_1}{45} - \frac{V_x}{50} + \frac{V_2 - V_3}{30} + \frac{V_2 - V_4}{50} = 0, \quad V_x = V_4 - V_3,$$
$$V_y = V_4 - V_2, \quad I_y = \frac{V_4 - V_2}{50}$$