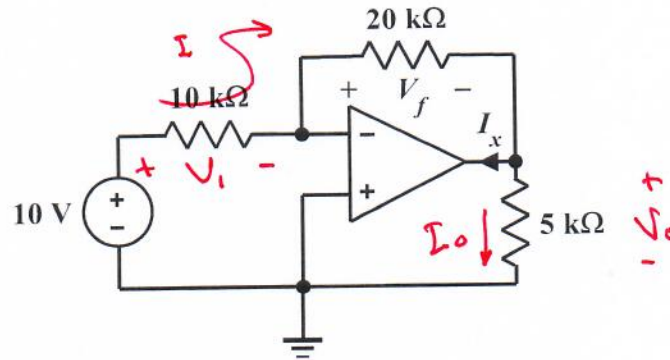


EE/EET 2240  
**Homework Problem #035**



The OpAmp is ideal. Determine:

(a) The value of  $V_f$ .

$$V_i = 10V$$

$$I = \frac{V_i}{10k\Omega} = 1mA$$

$$V_f = (20k\Omega) I = 20V$$

(b) The value of  $I_x$ .

$$V_o = -V_f = -20V$$

$$I_o = \frac{V_o}{5k\Omega} = -4mA$$

$$I_x = I - I_o = 1mA - (-4mA) = 5mA$$