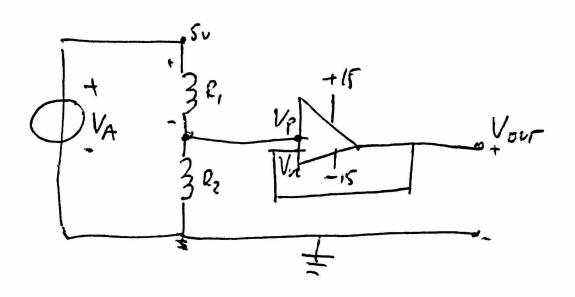
PROBLEM 3



$$l_1 = 10000 \Omega$$
 $l_2 = 10000 \Omega$
 $V_A = SV$

A)
$$V_n = V_p$$

$$V_p = V_A - \frac{\rho_1}{\rho_1 + \rho_2} \implies \int \frac{10000}{20000} = 2.5 \text{ V}$$

$$V_{out} = V_n \implies V_{out} = 2.5 \text{ V}$$