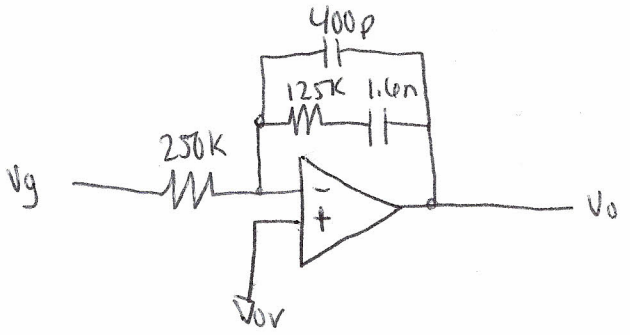

$C_1 = \frac{1}{SC} = \frac{2.5\times10^{9}}{S}$

$C_2 = \frac{1}{SC} = \frac{6.25\times10^{8}}{S}$

$p = \times10^{-12}$

$n = \times10^{-9}$

$$Z_1 = 125K + \frac{6.25\times10^{8}}{S}$$

$$Z_2 = Z_1 \| C_1$$

$$\frac{\left(\frac{2.5\times10^{9}}{S}\right)\left(125K + \left(\frac{6.25\times10^{8}}{S}\right)\right)}{\frac{2.5\times10^{9}}{S} + 125K + \frac{6.25\times10^{8}}{S}}$$

$$Z_2 = \frac{(2.5\times10^{9})(S+5\times10^{3})}{S(S+2.5\times10^{4})}$$

$$\frac{V_o}{V_{in}} = -\frac{R_2}{R_1} = -\frac{Z_2}{R_1} = \frac{-\frac{(2.5\times10^{9})(S+5\times10^{3})}{S(S+2.5\times10^{4})}}{250000}$$

$$\boxed{H(S) = -\frac{10^{4}(S+5000)}{S(S+25000)}}$$