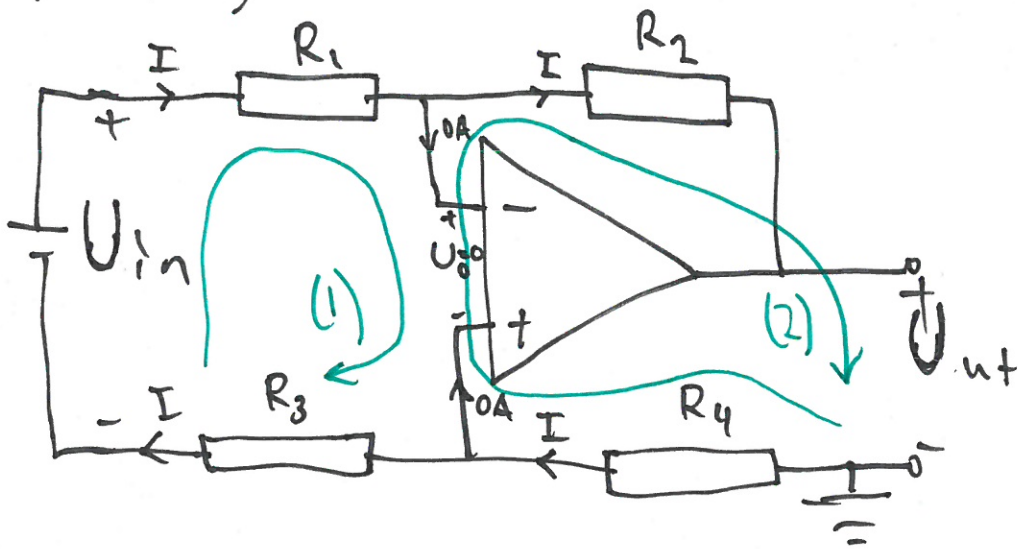


F = 1-6)



$$R_1 = 10 \text{ k}\Omega$$

$$R_2 = 100 \text{ k}\Omega$$

$$R_3 = 20 \text{ k}\Omega$$

$$R_4 = 110 \text{ k}\Omega$$

$$(1) \quad U_{in} - R_1 \cdot I - R_3 \cdot I = 0$$

$$(2) \quad -R_4 \cdot I - R_2 \cdot I - U_{out} = 0$$

$$(1) \Rightarrow I = \frac{U_{in}}{R_1 + R_3}$$

$$(2) \Rightarrow I = \frac{-U_{out}}{R_2 + R_4}$$

$$\Rightarrow F = \frac{U_{out}}{U_{in}} = - \frac{R_2 + R_4}{R_1 + R_3} = - \frac{100 \text{ k} + 110 \text{ k}}{10 \text{ k} + 20 \text{ k}} = - \frac{210 \text{ k}}{30 \text{ k}} = -7$$

$$F = -7$$