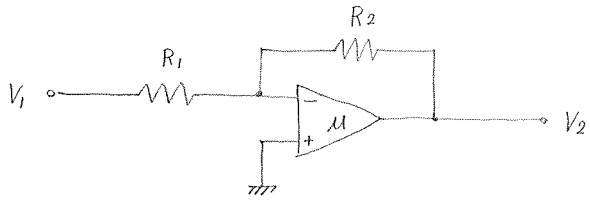
No.

Date

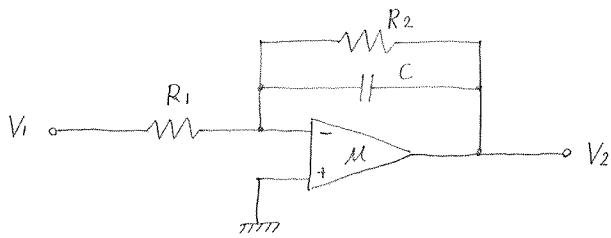
2.

(1)



$$\frac{V_1}{R_1} = \frac{-V_2}{R_2} \quad \text{より} \quad R_2 V_1 = -R_1 V_2 \quad \therefore \quad \frac{V_2}{V_1} = -\frac{R_2}{R_1}$$

(2)



$$\frac{V_1(j\omega)}{R_1} = \frac{-V_2(j\omega)}{\frac{R_2 \cdot \frac{1}{j\omega C}}{R_2 + \frac{1}{j\omega C}}} \quad \text{より} \quad V_1(j\omega) \cdot \frac{R_2}{1 + jR_2\omega C} = -R_1 V_2(j\omega)$$

$$\therefore \quad T(j\omega) = \frac{V_2(j\omega)}{V_1(j\omega)} = -\frac{R_2}{R_1(1 + jR_2\omega C)}$$

(3)

$$T(j\omega) = -\frac{R_2}{R_1(1 + jR_2\omega C)} = -\frac{1}{\frac{R_1}{R_2} + jR_1\omega C}$$

$\frac{R_1}{R_2} = R_1\omega C = 2\pi f_c R_1 C$ のときの f_c を 遮断周波数 というので,

$$f_c = \frac{1}{2\pi C R_2}$$