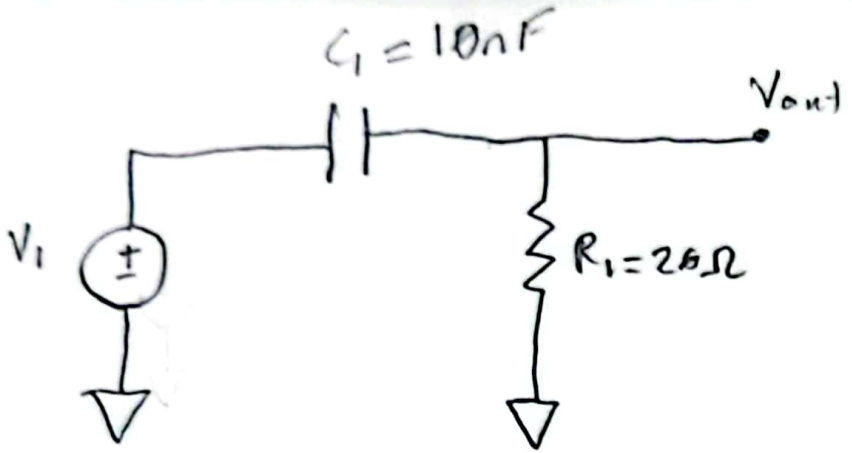

$$Z_{C_1} = \frac{1}{sC_1}$$

$$Z_{R_1} = R_1$$

$$V_1 = V_{in}$$

Voltage divider

$$V_{out} = V_1\left(\frac{R_1}{R_1 + Z_{C_1}}\right) \Rightarrow \frac{V_{out}}{V_{in}} = \left(\frac{R_1}{R_1 + Z_{C_1}}\right)$$

$$H(s) = \frac{V_{out}(s)}{V_{in}(s)} = \frac{R_1}{R_1 + Z_{C_1}}$$

$$H(s) = \frac{V_{out}(s)}{V_{in}(s)} = \frac{R_1}{R_1 + \frac{1}{sC_1}} \Rightarrow \frac{R_1}{R_1 + \frac{1}{sC_1}} \cdot \frac{sC_1}{sC_1} = \frac{sC_1R_1}{sC_1R_1 + 1}$$

$$s = jw$$