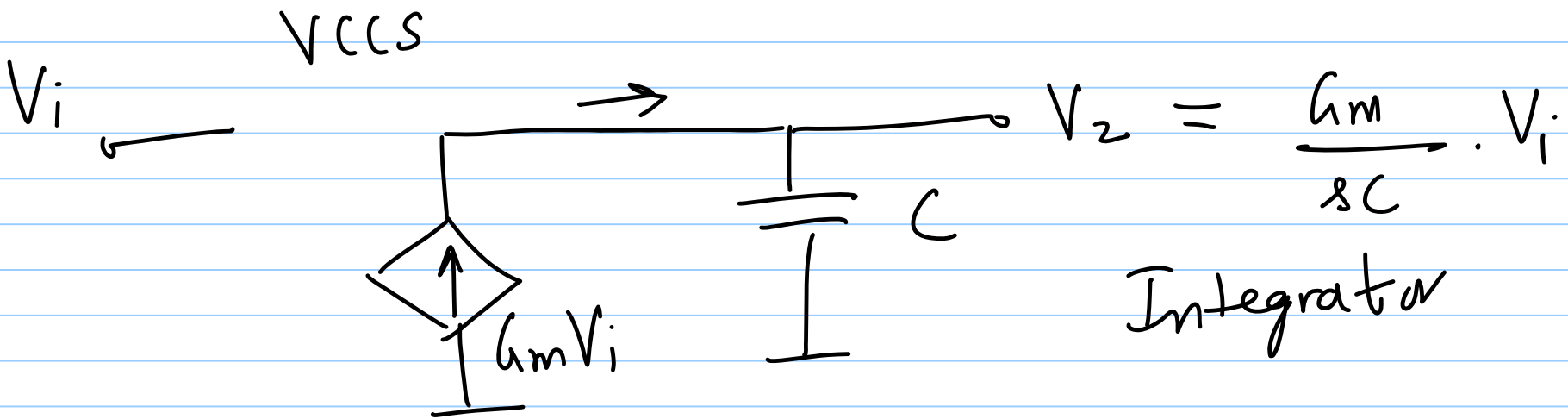
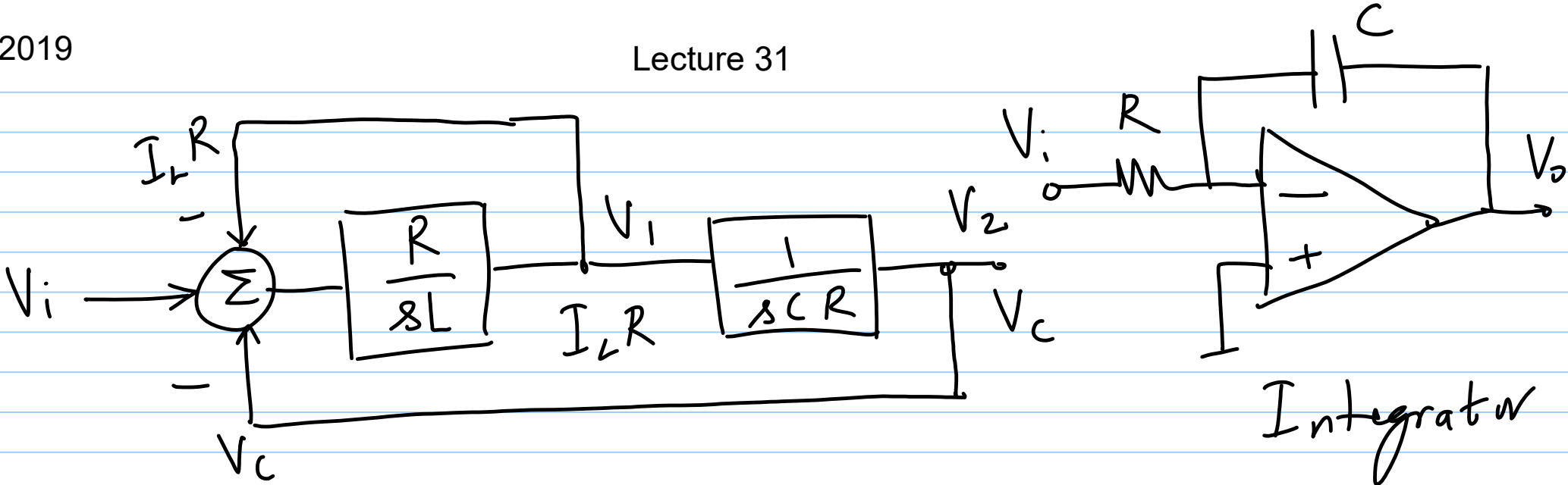
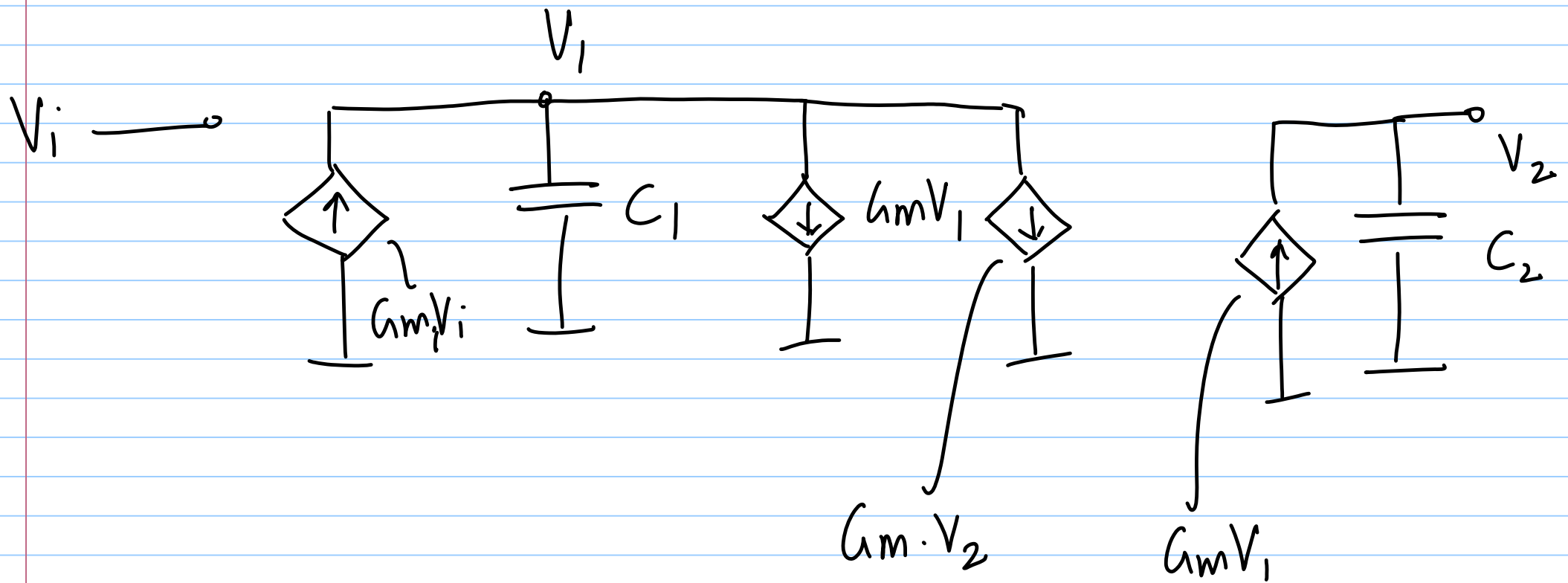


22/03/2019

Lecture 31

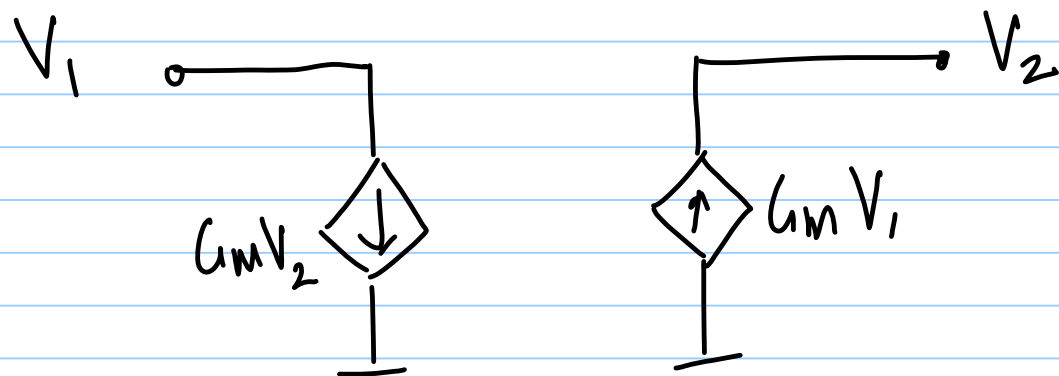
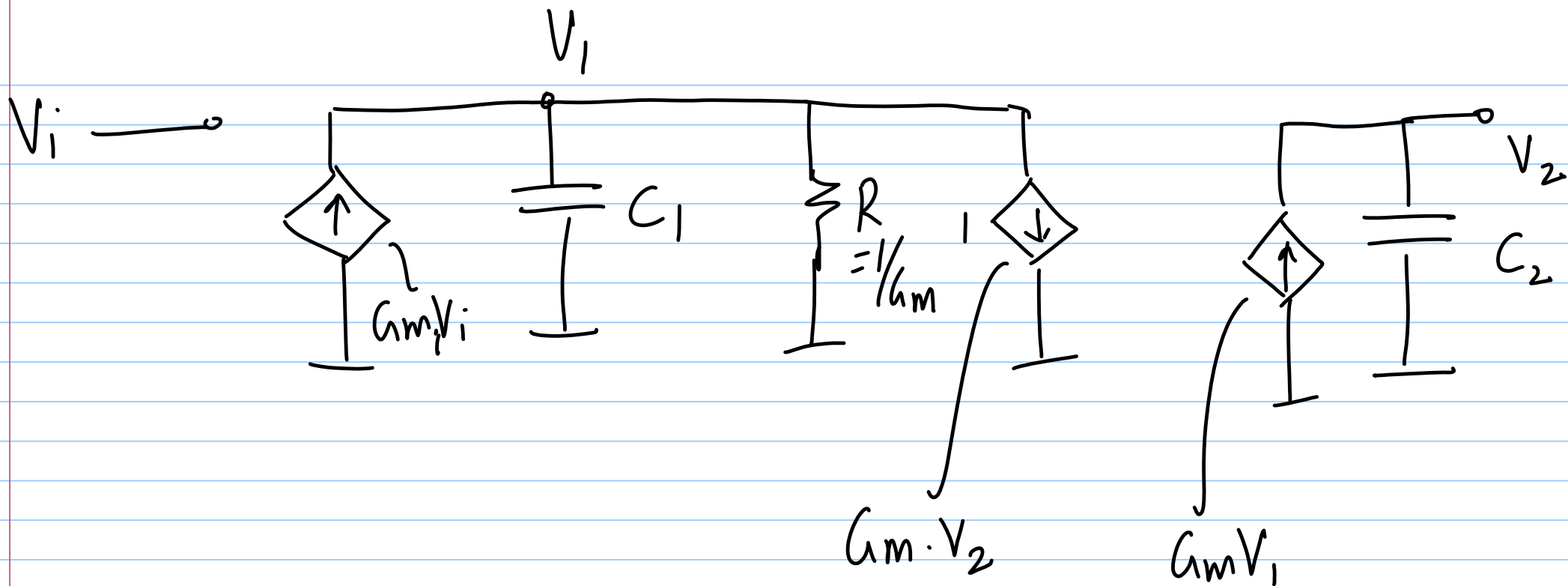




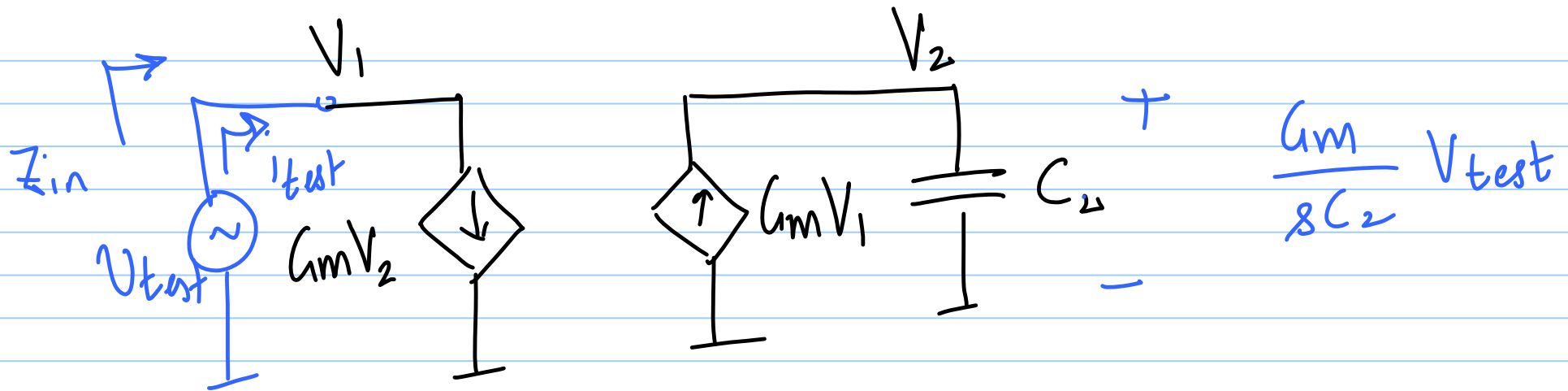
$$\frac{V_2}{V_i}(s) = \frac{G_{mi}/G_m}{1 + sC_2/G_m + \frac{s^2 C_1 C_2}{G_m^2}} \quad \text{(LP)}$$

$$\frac{V_1}{V_i}(s) = \frac{\left(g_{mi}/g_m\right) \cdot \frac{sC_2}{g_m}}{D(s)} \quad \text{BP}$$

$$\omega_n = \frac{g_m}{\sqrt{C_1 C_2}} \quad ; \quad Q = \sqrt{\frac{C_1}{C_2}}$$



$$Y = \begin{bmatrix} 0 & g_m \\ -g_m & 0 \end{bmatrix}$$



$$i_{test} = \frac{G_m^2}{sC_2} \cdot V_{test}$$

looks like an inductor

$$L_{eq.} = \frac{C_2}{G_m^2}$$

V_i —

