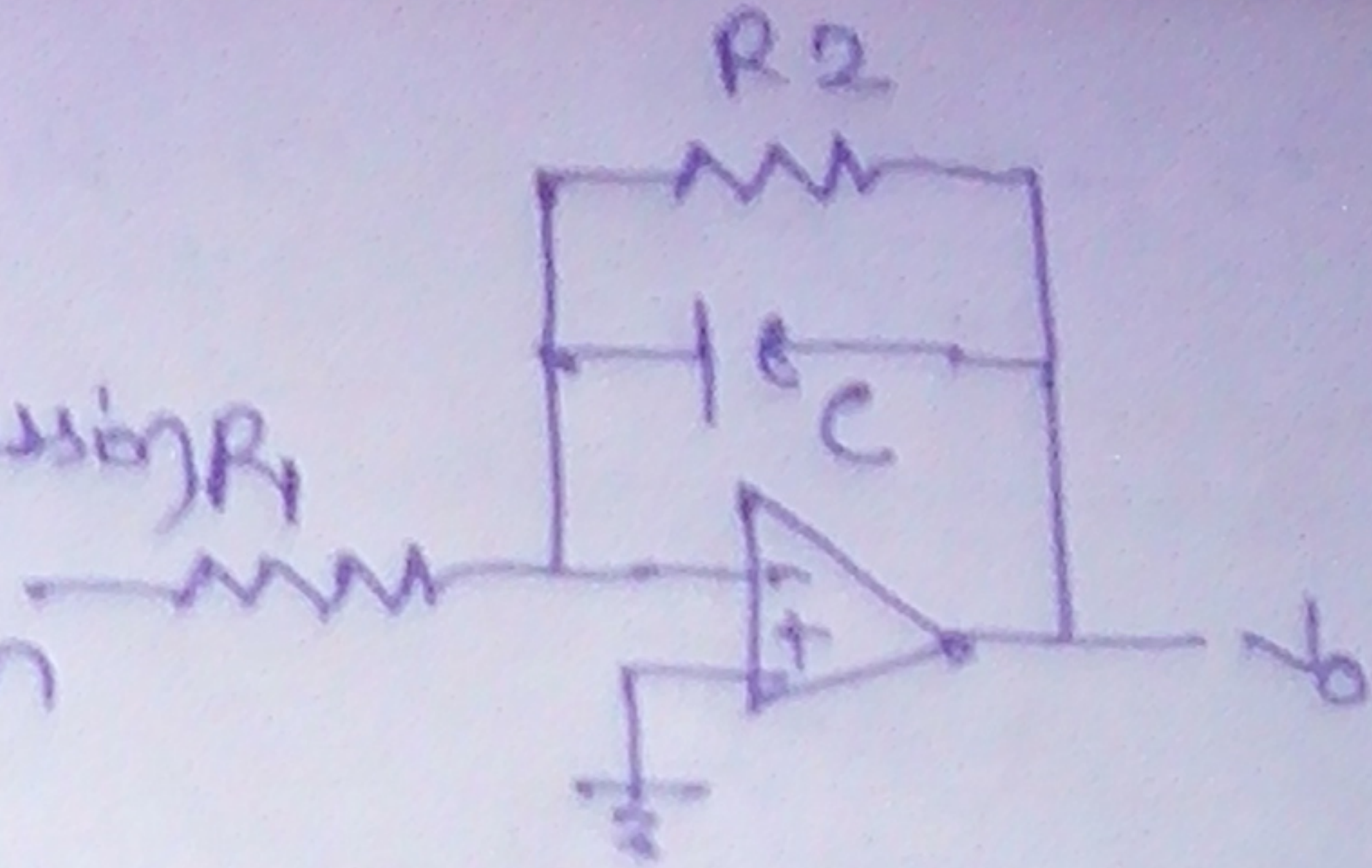


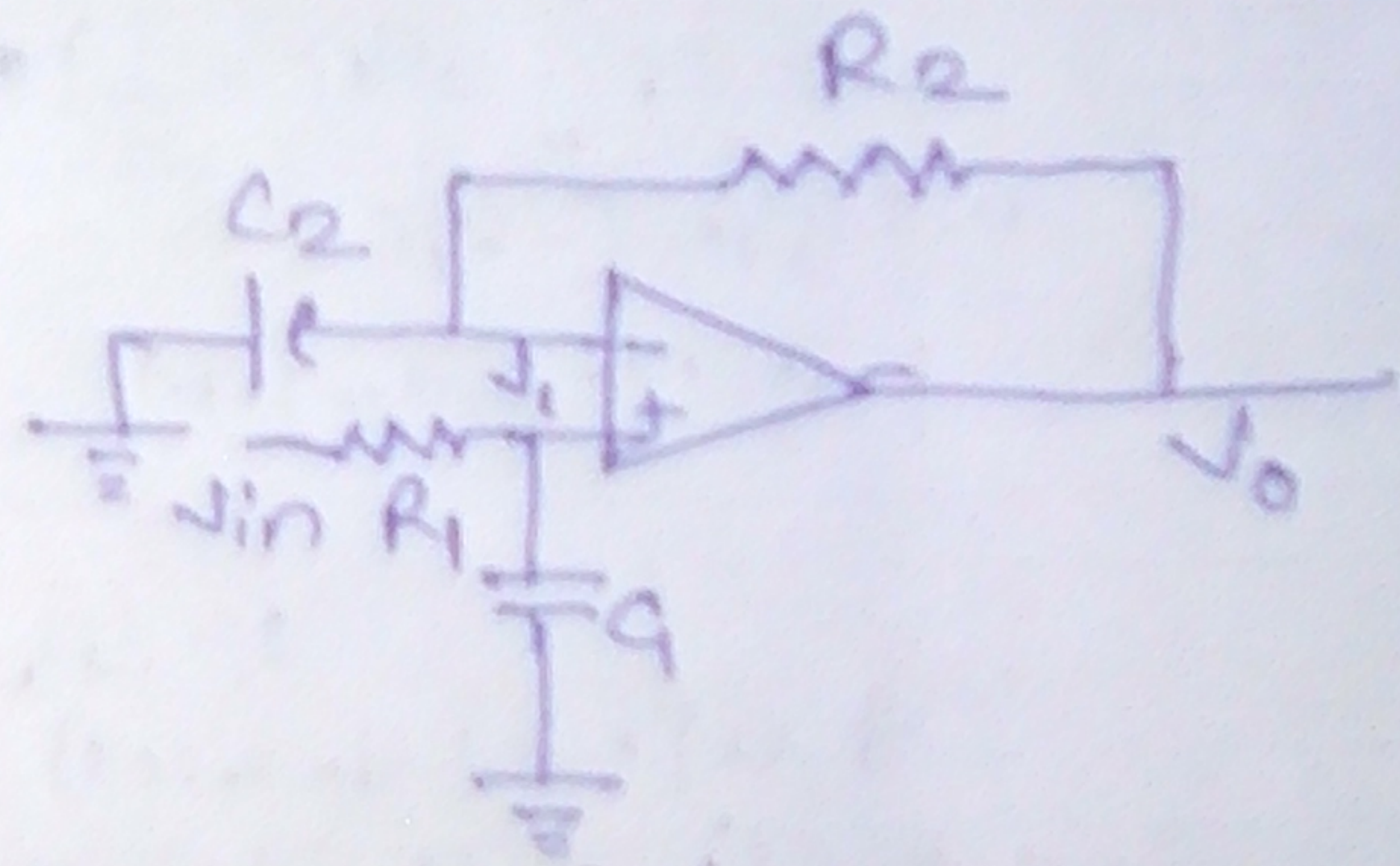
HA # 9.

Q 1) a) Derive the expression for the T.F. $\frac{V_o(j\omega)}{V_{in}}$



b) If $C = 10\text{ nF}$ and $R_1 = 2\text{ k}\Omega$, plot the magnitude response for R_2 equal to
i) $100\text{ k}\Omega$, (ii) $300\text{ k}\Omega$, (iii) $500\text{ k}\Omega$.
(MATLAB)

Q2-2)



a) Derive the T.F. for the above circuit.
b) use MATLAB to find the poles & zeros.
c) plot the magnitude & phase response
assume that $C_1 = 0.1\text{ }\mu\text{F}$, $C_2 = 1000\text{ nF}$
 $R_1 = 10\text{ k}\Omega$, $R_2 = 10\text{ }\Omega$ (MATLAB).

Note -> Both the questions have to be solved manually as well.