Design Requirement

- In the cascaded circuit, $V_{OA} = K_A \times V_{IA}$, where K_A is the same value given in Table 2 in Circuit Design Part A.
- In the cascaded circuit, $V_{OB} = K_B \times V_{IB}$, where K_B is the same value given in Table 2 in Circuit Design Part A.
- In the cascaded circuit, $V_O = K_A \times K_B \times K_C \times V_S$, where $K_C = 1$. In addition, the output voltage V_O must be 180 degrees out of phase with the input voltage V_S.

Design Constraint

- You are allowed to use any type of circuit component and device available in the laboratory including resistor, inductor, capacitor, op-amp, etc.
- All resistors that you use must have resistances within the range of 1 kΩ to 10 kΩ. Refer to APPENDIX II for available resistors.
- If you use op-amp, you are allowed to use a maximum of TWO op-amps only.
- Use as FEWEST components as possible.