



$$\begin{aligned} V_{out} &= \frac{R_4}{R_3 + R_4} v_2 \left( 1 + \frac{R_2}{R_1} \right) - \frac{R_2}{R_1} v_1 \\ &= \frac{R_2}{R_1} (v_1 - v_2), \text{ when } \frac{R_4}{R_3} = \frac{R_2}{R_1} \end{aligned}$$

$$Z_{in}(v_1) = R_3 + R_4$$

$$Z_{in}(v_2) = R_1$$

$$Z_{out} = 0$$