Problem Wk.8.3.3: Op Amp practice

Part 1: Op Amps

1. Consider the following circuit:

Note that both resistors have the same value.

If \( V_i = 4 \), then \( V_o = \) ...

If \( V_i = 8 \) then \( V_o = \) ...

If \( V_i = 10 \) then \( V_o = \) ...

Part 2: Op Amps

1. Assume the op-amps in the following circuit are "ideal."

Determine the current \( I_x \) when \( V_1 = 1 \text{ Volts} \) and \( V_2 = 2 \text{ Volts} \).

\[ \text{Amps (as decimal number)} \]

Determine the voltage \( V_A \) when \( V_1 = 1 \text{ Volts} \) and \( V_2 = 2 \text{ Volts} \).

\[ \text{Volts (as decimal number)} \]

Determine a general expression for \( V_A \) in terms of \( V_1 \) and \( V_2 \). Enter the coefficients as decimal numbers:
\[ V_A = \underline{\phantom{\times}} \times V_1 + \underline{\phantom{\times}} \times V_2 \]