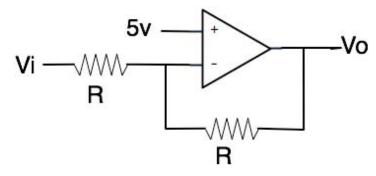
## Problem Wk.8.3.3: Op Amp practice

## Part 1: Op Amps

1. Consider the following circuit:



Note that both resistors have the same value.

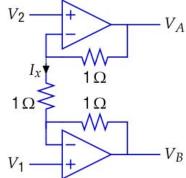
If 
$$V_i = 4$$
, then  $V_0 =$ 

If 
$$V_i = 8$$
 then  $V_0 =$ 

If 
$$V_i = 10$$
 then  $V_0 =$ 

## 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  $V_2 = 2 \text{ Volts}$ .

Amps (as decimal number)

Determine the voltage  $V_A$  when  $V_1=1\, Volts$  and  $V_2=2\, Volts$ .

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:

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