

**Boise State University**  
**Electrical Engineering Department**

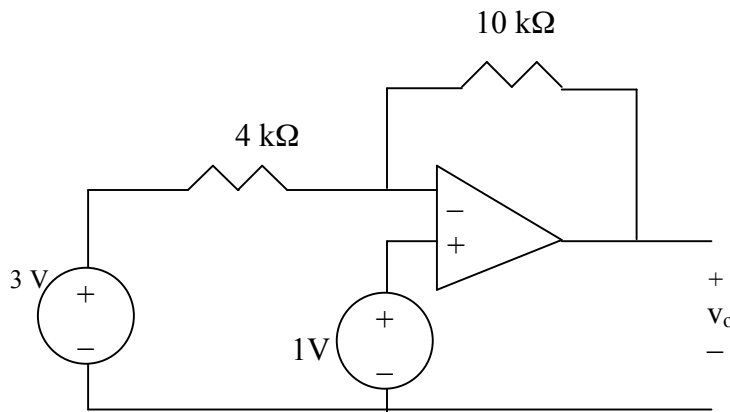
EE 210: Circuits I  
Spring 2017

Due Date: Wed. 3/08/2017

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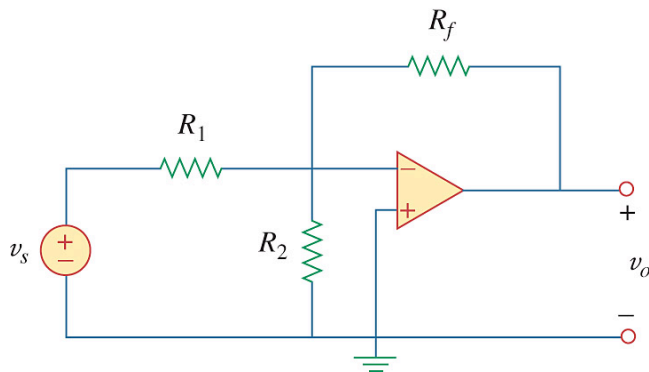
**Problem 1.**

Calculate  $v_o$  in the op amp circuit of Fig. 5.60.



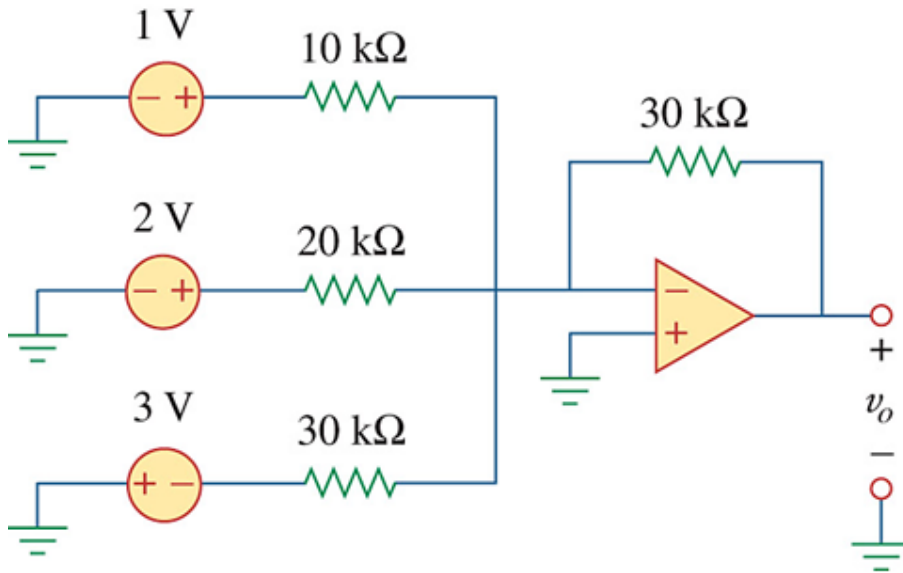
**Problem 2.**

For the op amp circuit in Fig. 5.61, find the voltage gain  $v_o/v_s$ .



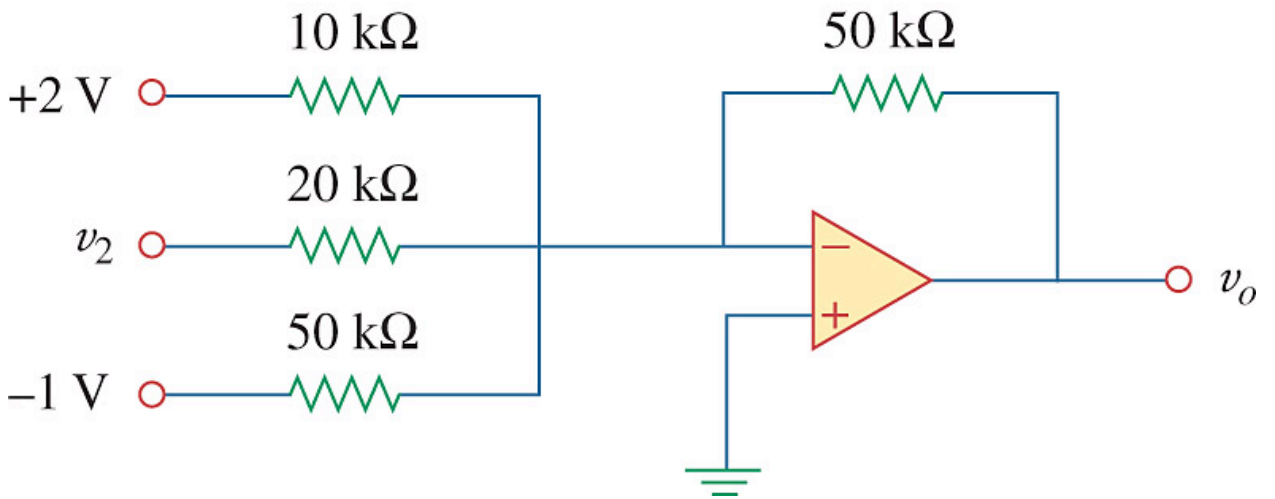
**Problem 3.**

Determine the output of the summing amplifier in Fig. 5.74.



**Problem 4.**

For the op amp circuit in Fig. 5.76, determine the value of  $v_2$  in order to make  $v_o = -16.5$  V.



**Problem 5.**

The circuit in Fig. 5.79 is for a difference amplifier. Find  $v_o$  given that  $v_1 = 1\text{V}$  and  $v_2 = 22$ .

