

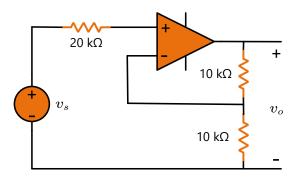
ELEC 1111 - Electric Circuits Tutorial 6 - Operational Amplifiers

Australia's Global University

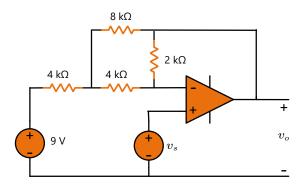
Faculty of Engineering

School of Electrical Engineering and Telecommunications

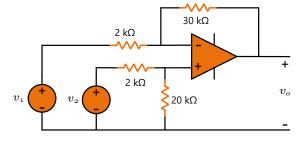
1. Find the voltage gain v_o/v_s of the following circuit:



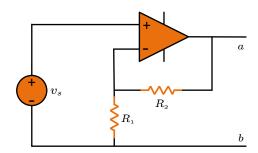
2. Consider the following circuit with an operational amplifier. Calculate the output voltage v_o for a voltage v_s of 5 V.



3. Find the relation between v_o and the two voltages v_1 and v_2 in the following circuit. Calculate v_o for $v_1=1$ V and $v_2=2$ V.



4. Calculate the Thevenin equivalent of the following circuit as seen from terminals a-b. Use a similar approach to circuits with dependable sources.



5. Find the voltage gain v_o/v_i of the following circuit:

