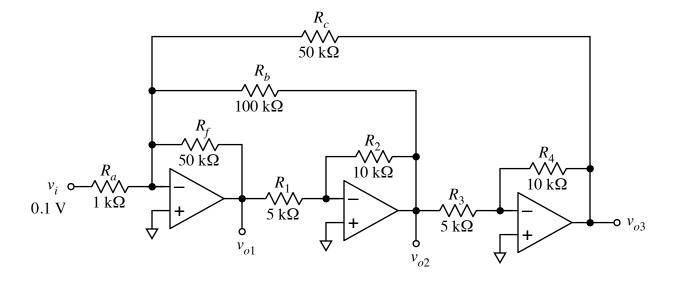
For the circuit below, calculate the three indicated output voltages,  $v_{o1}$ ,  $v_{o2}$ , and  $v_{o3}$ .

Note: Identify the function of each of the individual op-amps, particularly the first (left-most) one. Then start by finding an expression for  $v_{o1}$ .



 $v_{o1} = v_{o2} = v_{o3} = v_{o3}$