$\qquad$
For the circuit below, calculate the three indicated output voltages, $v_{o 1}, v_{o 2}$, and $v_{o 3}$.
Note: Identify the function of each of the individual op-amps, particularly the first (left-most) one. Then start by finding an expression for $v_{o 1}$.

$v_{o 1}=$ $\qquad$ , $v_{o 2}=$ $\qquad$ , $v_{o 3}=$ $\qquad$

