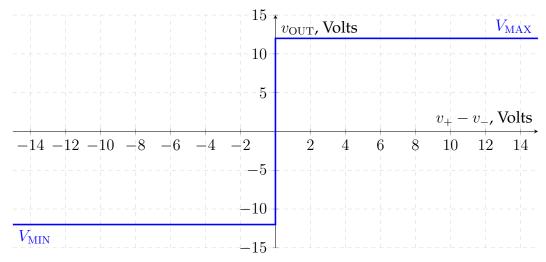
Name:

All responses that show effort receive full credit, regardless of score.

1. Draw and clearly label the dependent source model of an unsaturated op-amp in the space provided below.

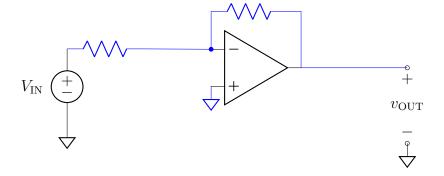
$$\begin{array}{c|c}
 & v_{+} \\
 & v_{OUT} \\
 & A \cdot (v_{+} + v_{-}) \\
 & & v_{-} \\
 & & v_{-} \\
\end{array}$$

2. Sketch and clearly label the approximate $v_{\rm OUT}$ vs. $v_+ - v_-$ relation for an op-amp on the axes below. Assume the op-amp's output range is $-12{\rm V}$ to $+12{\rm V}$ and the units shown are all in volts.

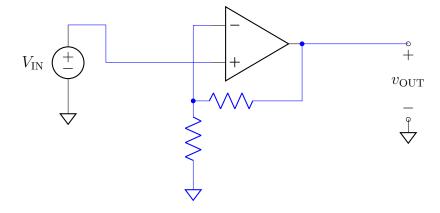


3. Complete the schematic to create either a non-inverting amplifier (from lab 5 or lecture 6a) or an inverting amplifier (from recitation 6). Indicate which you chose.

Inverting Op-amp



Non-Inverting Op-amp



Note: 4-way cross does not have a dot, i.e. not connected